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# MONTHLY PROGRESS REPORT ★ SECTION

## HEALTH

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30 APRIL 1945

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ARMY SERVICE FORCES ★ WAR DEPARTMENT





# HEALTH

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## SUMMARY

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**NONEFFECTIVE AND ADMISSION RATES** March and April rates are generally favorable, especially marked improvement being noted in the European Theater. Outstanding exceptions are the nine percent noneffective rate for troops in the Z/I during April, six percent of which represents overseas patients, and the higher rates of the Southwest Pacific Area for March. See pages 2 to 5.

**NEUROPSYCHIATRIC PROBLEM, WORLD WAR I AND WORLD WAR II** The greater incidence of neuro-psychiatric disorders in World War II is discussed with reference to the factors believed to be responsible, and the greater complexity of the current problem is illustrated. See pages 6 to 9.

**VENEREAL DISEASE OVERSEAS** Despite a generally upward trend in the rate of infection, treatment time has been reduced to such an extent that current noneffective rates are relatively favorable. See pages 10 to 12.

**REGIONAL DISTRIBUTION OF WOUNDS AND THEIR CAUSATIVE AGENTS** Observations on the European experience are in entire accord with similar data for this war and others with respect to location of wound. A greater proportion of wounds appear to be caused by high explosive fragments in the European area than in the Pacific area. See pages 13 to 15.

**EVACUATION POLICY IN FORWARD AREAS** An analysis of medical care in the army area provides estimates of the savings in beds or replacement needs when patients are evacuated early. Factors limiting direct return to duty from army medical installations are discussed. See pages 18 to 21.

**DISPOSITION OF ADMISSIONS IN FORWARD AREAS** Data on return to duty prior to evacuation from echelon of admission are discussed for various echelons. The armies in Europe have returned to duty directly from army medical installations from 50 to 70 percent of disease admissions, 25 to 50 percent of nonbattle injury admissions, and 10 to 30 percent of the wounded. Special efforts have been made to gear hospitalization in the army area to the purpose of minimizing the need for trained replacements. See pages 22 to 27.

**HOSPITALIZATION OVERSEAS** Fixed bed occupancy in the European Theater declined from 5.8 percent of strength on 1 March to 5.3 on 1 April and about 4.4 on 4 May. See pages 28 to 31.

**EVACUATION FROM OVERSEAS** During April about 43,000 Army patients were debarked in the Z/I as against 45,000 in March. Air lift alone accounted for 9,000 in April. Only 88 Recovered Allied Military Personnel were received as patients during April, but 5,000 were expected to be available for shipment to the Z/I during May. During 1944, 60 percent of all evacuees were disease patients but by February disease patients represented less than 40 percent of patients received. Causes of evacuation from the major theaters are discussed. See pages 32 to 36.

**HOSPITALIZATION IN THE Z/I** There were 200,000 patients remaining in the general and convalescent hospitals at the end of April, more than twice the number at the end of November 1944. The necessity for accelerating disposition from general and convalescent hospitals is discussed. In the general hospitals proper there were 153,000 patients, 110,000 of whom were occupying beds at the end of April. There were 46,000 patients remaining in convalescent hospitals at the end of April, 30,000 occupying beds, against an operating capacity of 47,000 beds. The personnel situation improved during April, especially with regard to nurses. See pages 37 to 41.

**CIVIL PUBLIC HEALTH IN THE EUROPEAN THEATER** The civilian health problems of the European Theater are discussed on pages 42 and 43.

**NURSE ROTATION** Although the shortage of nurses previously had imposed severe limitations upon the rotation of Army nurses, it now appears possible to bring home about 2,500 nurses with 2 years or more service in the Pacific in exchange for nurses from the Z/I. See page 44.

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# DISEASE AND INJURY

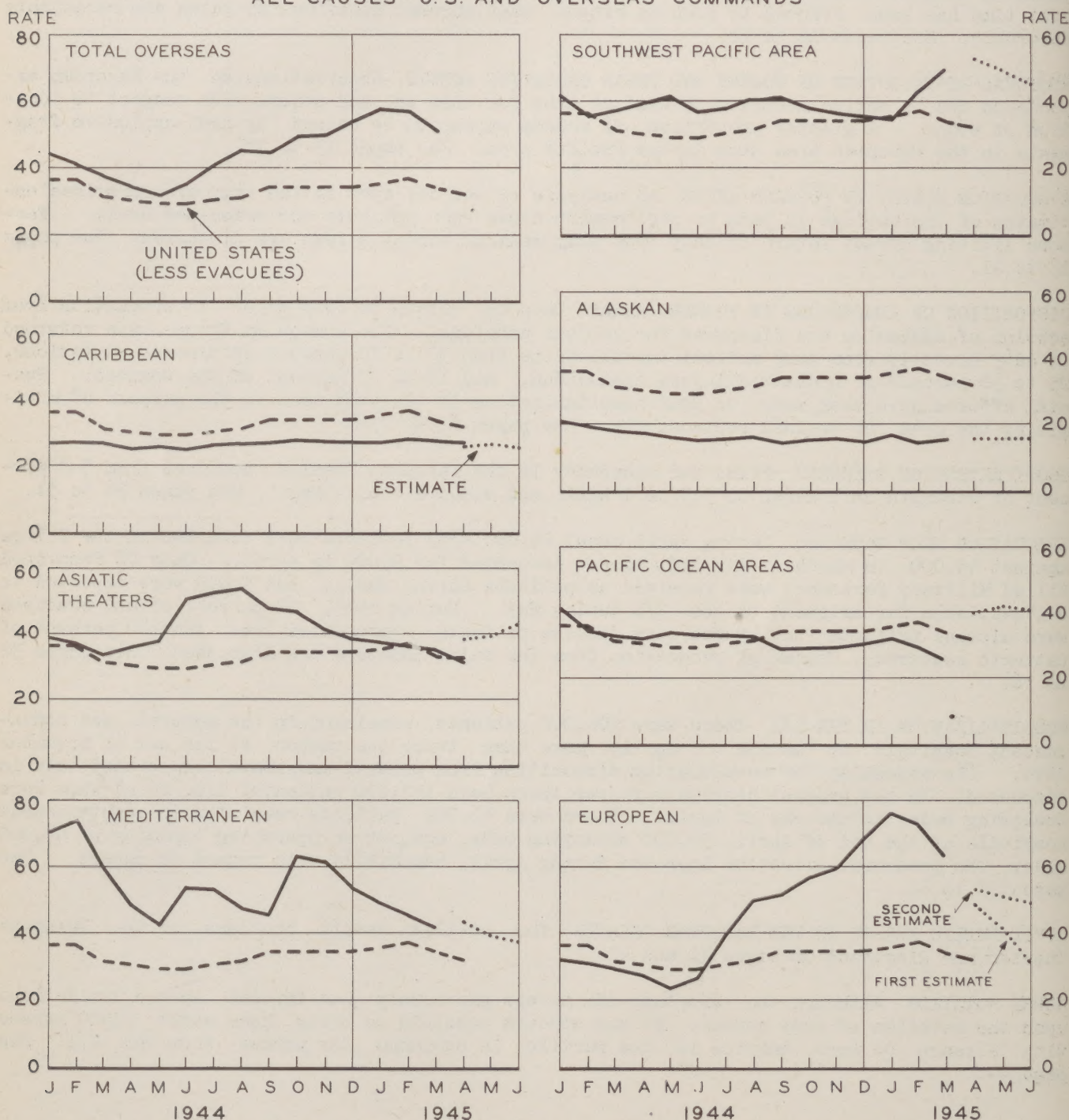
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## NONEFFECTIVE RATES

In March there was a further decline in the total noneffective rate for the Army overseas which began in February. This was mainly the result of a decrease in the rate for the European Theater, although declines were noted for all theaters except the Southwest Pacific.

The recent rates for the Southwest Pacific Area and the Pacific Ocean Areas have been recomputed using complete strength counts for these areas. The high level shown for these areas previously resulted mainly from incomplete strength reporting. The correction of these rates also lowers the total overseas rate, but without disturbing its trend. The peak rate of 66 previously shown for January 1945 has been corrected to 58 per thousand strength.

## AVERAGE NUMBER OF NONEFFECTIVES PER THOUSAND STRENGTH ALL CAUSES - U.S. AND OVERSEAS COMMANDS



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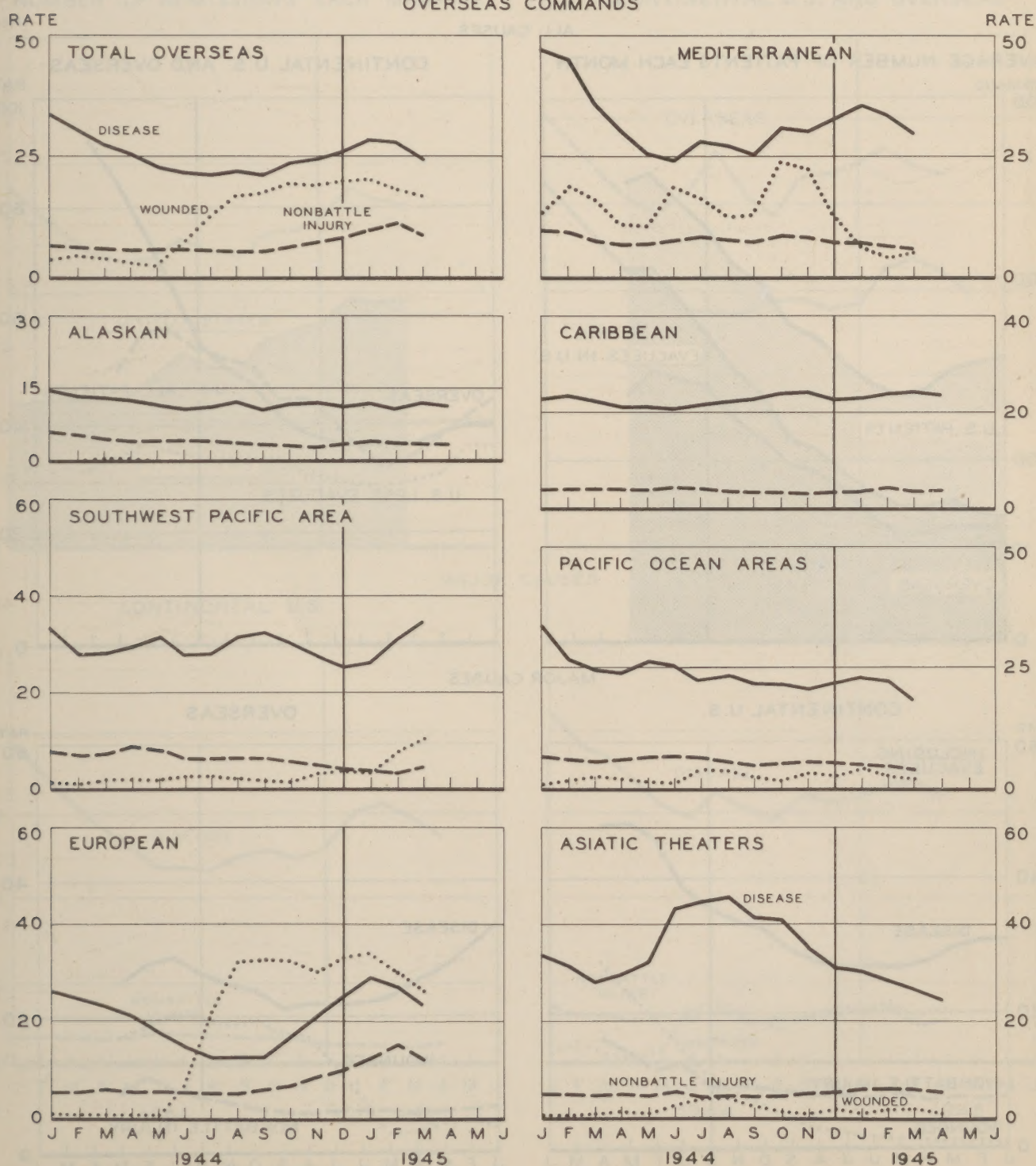
# DISEASE AND INJURY

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## NONEFFECTIVE RATES (Continued)

The charts below subdivide the total noneffective rates shown on the previous page into their disease, nonbattle injury, and wounded components. The rates for all three components increased suddenly in the Southwest Pacific during March both as the result of increased tactical activity in the Philippines and as the result of the removal of a large segment of strength to the Pacific Ocean Areas. The rates for the Pacific Ocean Areas decreased in compensation. The rate for wounded increased in the Mediterranean during March for the first month since October 1944. The wounded component for the European Theater, on the other hand, is lower than the level for any month since July 1944. Both the disease and injury rates for the European Theater declined also. The current level of the wounded component in the Southwest Pacific is the highest since January 1943, when a rate of 12 obtained.

### AVERAGE NUMBER OF NONEFFECTIVES PER THOUSAND STRENGTH OVERSEAS COMMANDS





# DISEASE AND INJURY

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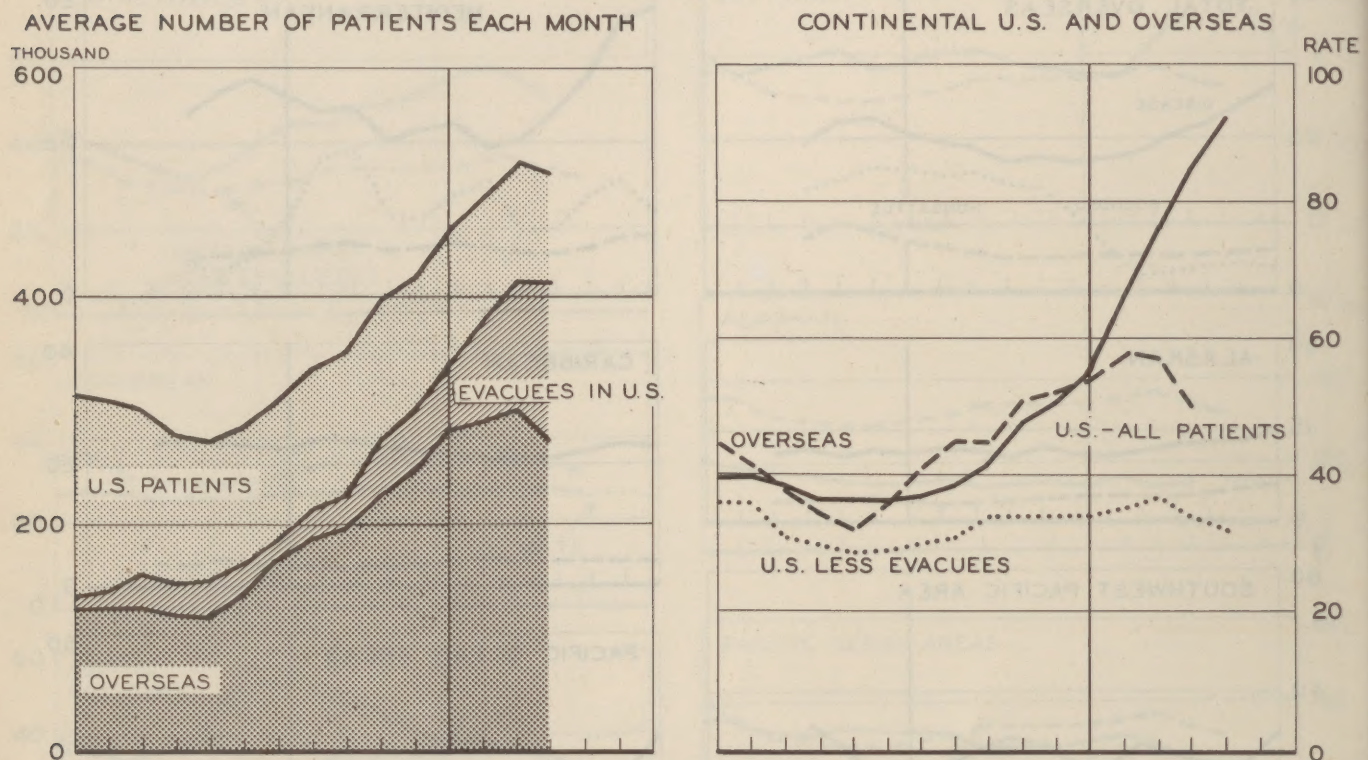
## NONEFFECTIVE RATES, UNITED STATES AND OVERSEAS

During April the noneffective rate for the U. S., corrected to exclude patients evacuated to the Z/I from overseas, declined to 31.8 per thousand strength. This rate is 13 percent less than that which obtained during February, when the past winter peak occurred, but is about seven percent above the rate for April 1944. The total U. S. rate, including evacuees, continued to increase and reached 92 for April, nine percent above the rate for March and more than two and one-half times the comparable rate for April 1944.

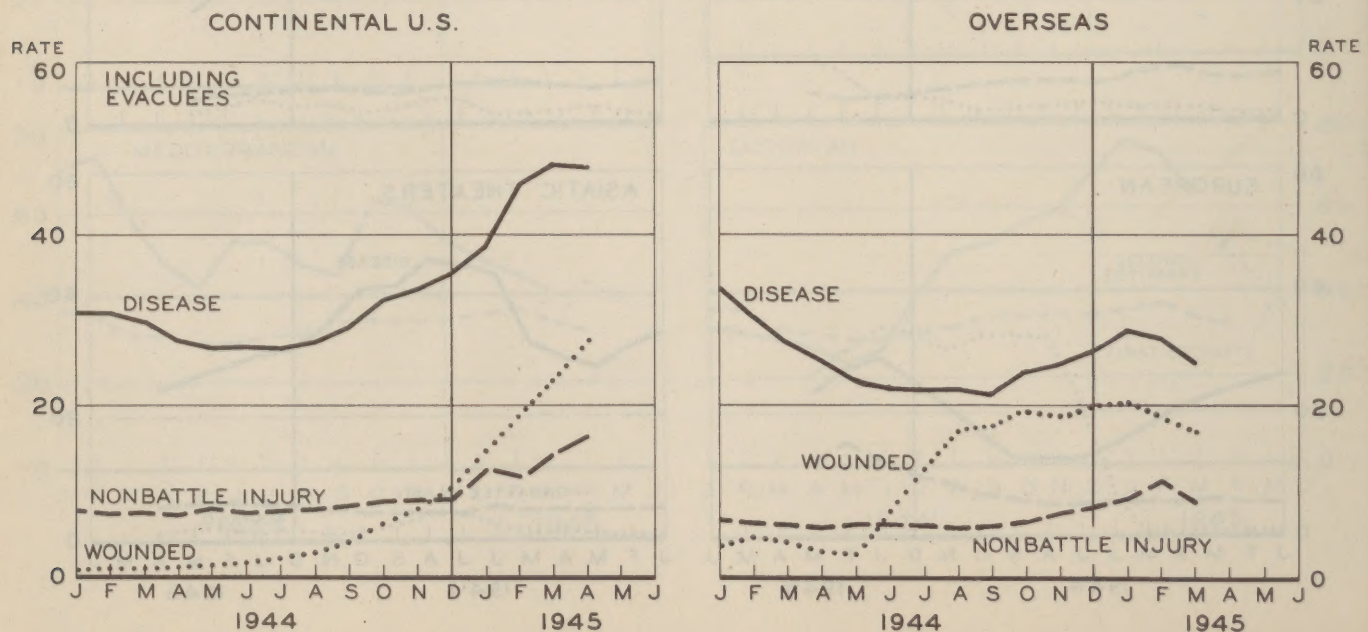
The charts below state noneffectives in both absolute and rate form, showing that the high rate in the Z/I is partly an artifact of declining strength upon which has been imposed a population of overseas patients of growing size. On the average, during March, there were 508,000 men noneffective each day, 271,000 overseas alone.

## AVERAGE NUMBER OF NONEFFECTIVES PER THOUSAND STRENGTH

### ALL CAUSES



### MAJOR CAUSES





DISEASE AND INJURY

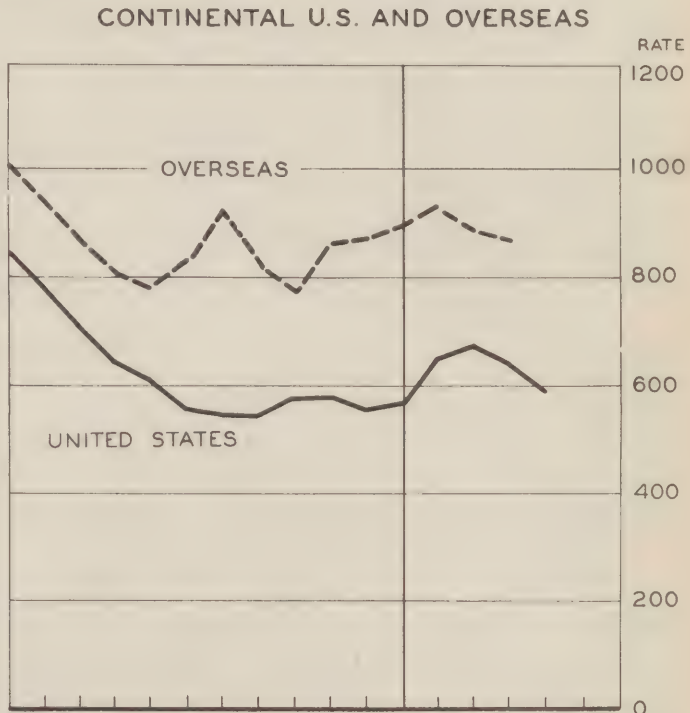
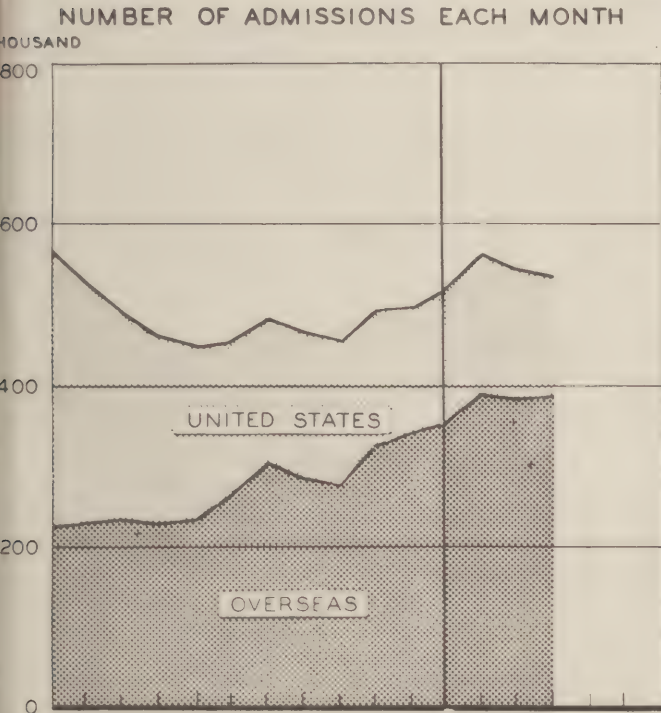
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DISEASE, INJURY, AND BATTLE CASUALTY ADMISSIONS

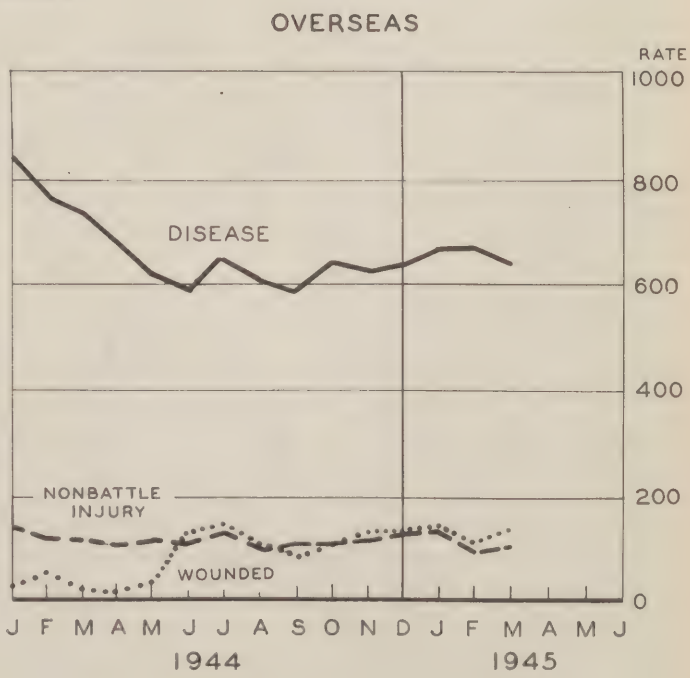
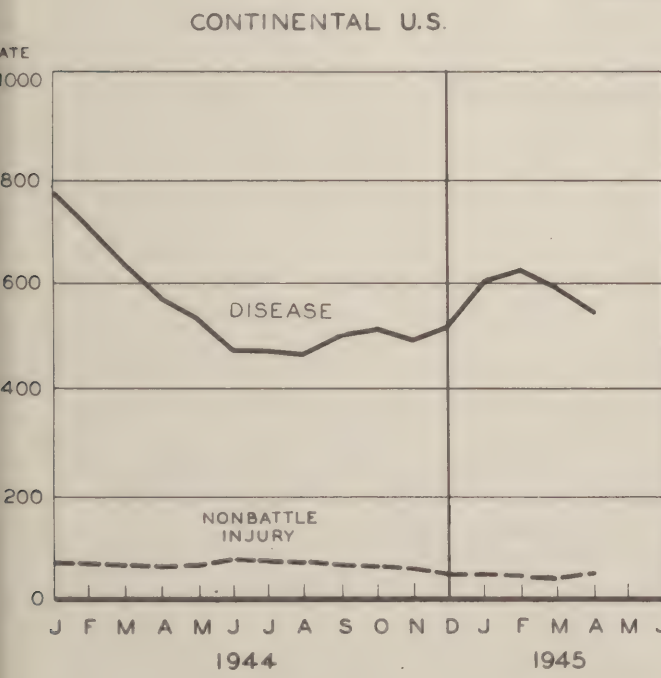
The downward trend in admissions for all causes both overseas and in the United States continued for the second month in succession. In the Army as a whole, there were about 536,000 admissions during March, 390,000 in overseas theaters. Overseas rates for nonbattle injury and wounded admissions rose somewhat in the direction of the levels which have been sustained since the invasion of Europe. The April admission rate for all causes in the U. S. is 592, an exceptionally low level for April. The disease rate of 544 is the lowest April rate since 1940.

DISEASE, INJURY, AND BATTLE CASUALTY ADMISSIONS PER THOUSAND MEN PER YEAR

ALL CAUSES



MAJOR CAUSES



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# DISEASE AND INJURY

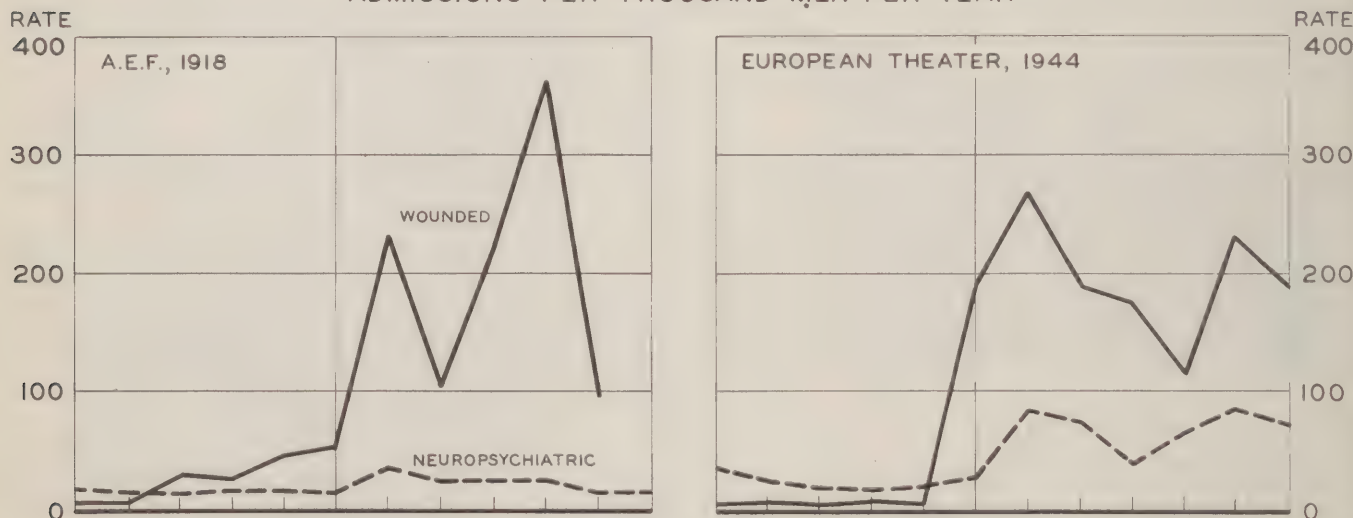
## NEUROPSYCHIATRIC PROBLEM IN WORLD WAR I AND WORLD WAR II

Statistical comparisons of reported incidence of neuropsychiatric conditions in World War I and World War II must be made with considerable caution. For several reasons the reported rates are only roughly related to the actual incidence of neuropsychiatric disorders in military personnel. Changes in administrative policies have resulted in gross fluctuations in the rates for this war. The present figures, although not entirely reliable, are sufficiently accurate to permit reasonable conclusions as to the magnitude of the problem, while, in World War I, reporting of neuropsychiatric conditions is known to have been much less complete and, in some instances, quite unreliable. When possible, adjustments have been made to correct these deficiencies in the charts shown here. An important factor is that in the present war the Army has been much more alert to psychiatric disorders than it was in the last, and has recognized many truly psychiatric conditions which in World War I were attributed to other causes. It remains true today, however, that many clear-cut cases are not recognized as psychiatric, or at least not diagnosed and classified as such, and are labeled "gastro-intestinal disorders", "low back pain", and the like. With all due allowances for these shortcomings in the reported rates, the evidence clearly indicates that the actual incidence of neuropsychiatric conditions is significantly higher in World War II than it was in World War I.

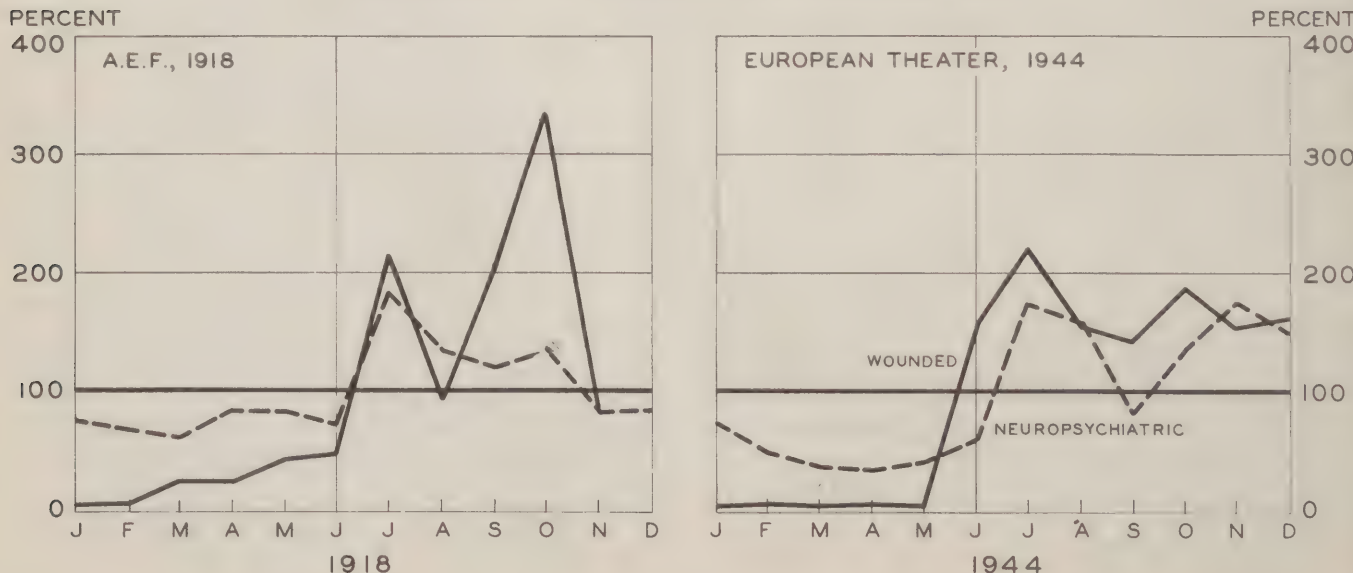
The charts below provide a statistical comparison of neuropsychiatric admissions to both hospital and quarters in the American Expeditionary Forces in World War I with that in

## NEUROPSYCHIATRIC AND WOUNDED ADMISSIONS TO HOSPITAL AND QUARTERS WORLD WAR I AND WORLD WAR II

### ADMISSIONS PER THOUSAND MEN PER YEAR



### PERCENT OF AVERAGE RATE FOR PERIOD



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## DISEASE AND INJURY

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## NEUROPSYCHIATRIC PROBLEM IN WORLD WAR I AND WORLD WAR II (Continued)

the European Theater in World War II. Since admissions to quarters were not recorded in World War I, the reported rates have been adjusted on the assumption that for every three admissions to hospital for psychoneurosis, behavior disorders, psychopathic states, and mental deficiency, there was an additional admission to quarters. With the advent of intensive combat the World War I rates increased by about 150 percent whereas those of the present war increased by about 300 percent. The theater rates for the recently concluded action have been about two to three times those for the active combat period in World War I. The theater casualty rate for 1918 more nearly approximates those of 1944-1945 if account is taken of the higher proportion of noncombat troops in the present war. An entirely satisfactory comparison of casualty rates for combat divisions cannot be made but the evidence suggests that rates for divisions in the line from 26 September to 11 November 1918 were five to six wounded per 1,000 men per day as against four to five for the period 6 June to 30 November 1944. The average neuropsychiatric admission rates for divisions in the line and in reserve were about 140 per thousand men per year for the A.E.F. and 260 for combat divisions on the European continent from June through November.

These differences cannot be attributed to inferior screening in this war, since the neuropsychiatric induction examination and criteria for acceptance are unquestionably far more rigid now than in World War I. One possible explanation is that the mental health of the nation has deteriorated in the twenty-five years since the last war; however, the evidence for this is far from conclusive and there is considerable evidence to the contrary. Certainly it is well known that the physical health of the young men of today is considerably better than that of their fathers. Another possibility is that classification and assignment of personnel in this war is less satisfactory than it was in the last, and that a greater number of men have been placed in jobs for which they are not fitted by training or inclination and that as a consequence they develop symptoms of maladjustment. However, evidence seems to indicate that the classification system is at least as good in this war as it was in the last, if not considerably better. Undoubtedly the most important single factor in the health of an enlisted man is the quality of the leadership to which he must submit and yet there is no reason to believe that the leadership in this war is inferior to that in the last. Certainly the training of junior officers for the present conflict has been as thorough as in the last war, and their knowledge of human motivation and behavior cannot be less than that of their predecessors. Certainly also their ability to supply equipment, food, furloughs, entertainment, and recreation are greater than in the last war. It is undoubtedly true that the problem in this war as a whole is rendered more severe by the prolongation of the war and particularly by prolonged combat without adequate relief. However, the foregoing chart on incidence shows clearly that high rates in the European Theater occurred in the second month after D-Day as well as after prolonged combat. It is possible that, regardless of the casualty rates, modern warfare is more terrifying, and many would attribute some of the differential psychiatric rates to this cause. The mental hazards of this war are probably greater than even the trench warfare of 1918. There are such factors as new weapons of greater ferocity and killing power, greater rapidity of movement, higher criteria for the ability to take responsibility and make decisions, and higher requirements as to mechanical skill and knowledge. It does not appear, however, that the degree of difference in this respect between this war and the last is enough to explain the wide variance in the neuropsychiatric rates. Finally, there is another major factor, namely that of the emotional conviction as to why we fight. It has been said that in the last war the men seized their guns with enthusiasm and were carried through hardship and danger by the emotional conviction that they were fighting a war to end all wars. In this war such a spirit has been conspicuously absent. The majority of men were drafted in a spirit of resignation; they have felt that there was a job to be done, but they have felt resentful that they rather than someone else were selected to do it. This difference in attitude is perhaps the most outstanding difference in the psychiatric picture of this war as compared with the last. It is now well established that absence of the will to fight, absence of the sense of immediate threat, and absence of anger at the enemy all predispose to psychiatric disorders.

With respect to the interrelation between combat and psychiatric admissions the experience of the two wars is probably even more similar than the statistical material suggests. The theater rates for wounded and neuropsychiatric casualties on page 6 are shown in both the usual form and as index numbers having as a base the average rate for the period in each case. The intimate relationship is evident. The incidence of wounding is an index of the intensity of combat, which is thus shown to determine in large part the incidence of neuropsychiatric casualties in both wars.

As with so many combat lessons, it was necessary to relearn in this war what was known before the United States entered the first World War, namely that treatment of psychiatric casualties in the most forward areas is more effective than in rear areas. Psychiatrists were assigned at the divisional level to prevent the evacuation of excessive numbers



DISEASE AND INJURY

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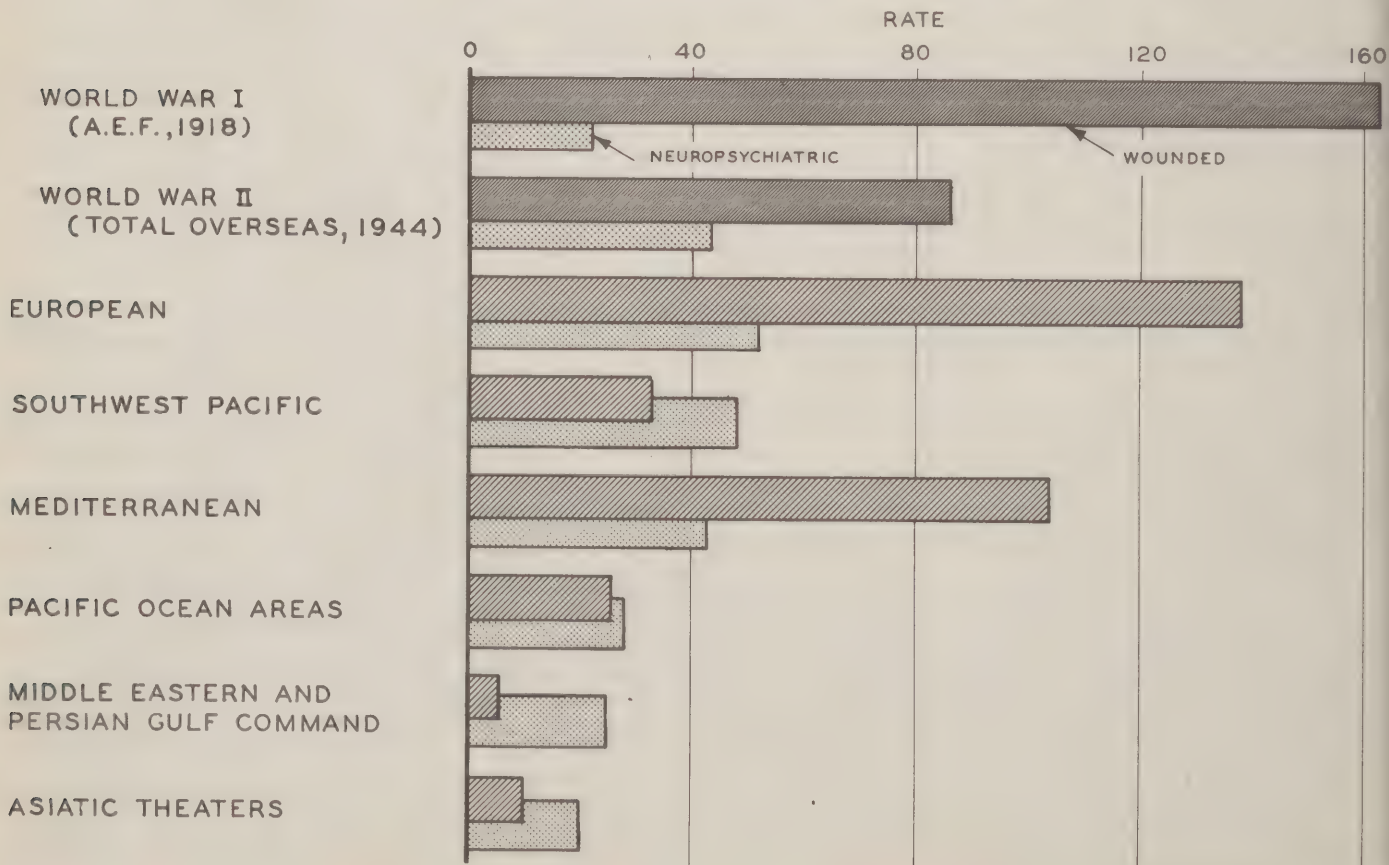
NEUROPSYCHIATRIC PROBLEM IN WORLD WAR I AND WORLD WAR II (Continued)

of men and to return to immediate duty as many as possible. During the first World War 40 to 70 percent were returned to some type of duty in the forward areas. In the present war 40 to 60 percent are returned to full combat duty, and an additional 20 to 40 percent of the cases occurring in combat are returned to non-combat duty in the theater.

It is not only combat which has caused high neuropsychiatric admission rates in the present war. This is readily appreciated from the chart below which compares admission rates for wounded and for neuropsychiatric patients for 1918, and for 1944 by theater of operation. Only one of the present theaters reports a lower rate than that of the A.E.F. in 1918, although none except the European and Mediterranean Theaters experienced casualties on a commensurate scale. The Southwest Pacific Area illustrates the complexity of the problem (see HEALTH for February) for, with an intensity of combat less than half that of the Mediterranean Theater, the Southwest Pacific Area reported a higher neuropsychiatric admission rate during 1944. Thus it is apparent that in overseas theaters, in addition to prolonged combat and deficient motivation, there are other factors which are related to a high neuropsychiatric rate. A considerable number of men have been overseas for three years, many for two years. They have been subjected to tropical and other adverse climates and have been forced to exchange their normal social and cultural environment for the monotony of the jungles, deserts, and isolated Arctic outposts. Thousands have been placed in base areas where they were not fully occupied and feel a sense of purposelessness in their sacrifices. In short, they have suffered more prolonged personal sacrifices on a very much greater scale than did troops in the first World War.

In the charts on page 9 neuropsychiatric admission rates for Zone of Interior troops are contrasted with discharge rates for these disorders in the entire Army for the two wars. Since discharges include patients admitted overseas as well as those from the Zone of Interior, the two rates have very different bases. During 1918 both rates increased gradually and then, after the Armistice, fell off to entirely new levels. The marked fluctuation in the two curves in World War II clearly shows that factors are operating to cause increases in the reported incidence of neuropsychiatric conditions that were not present in World War I, for a large share of the neuropsychiatric discharges in World War II have involved pa-

NEUROPSYCHIATRIC AND WOUNDED ADMISSIONS PER THOUSAND MEN PER YEAR  
WORLD WAR I, A.E.F., AND WORLD WAR II BY THEATER





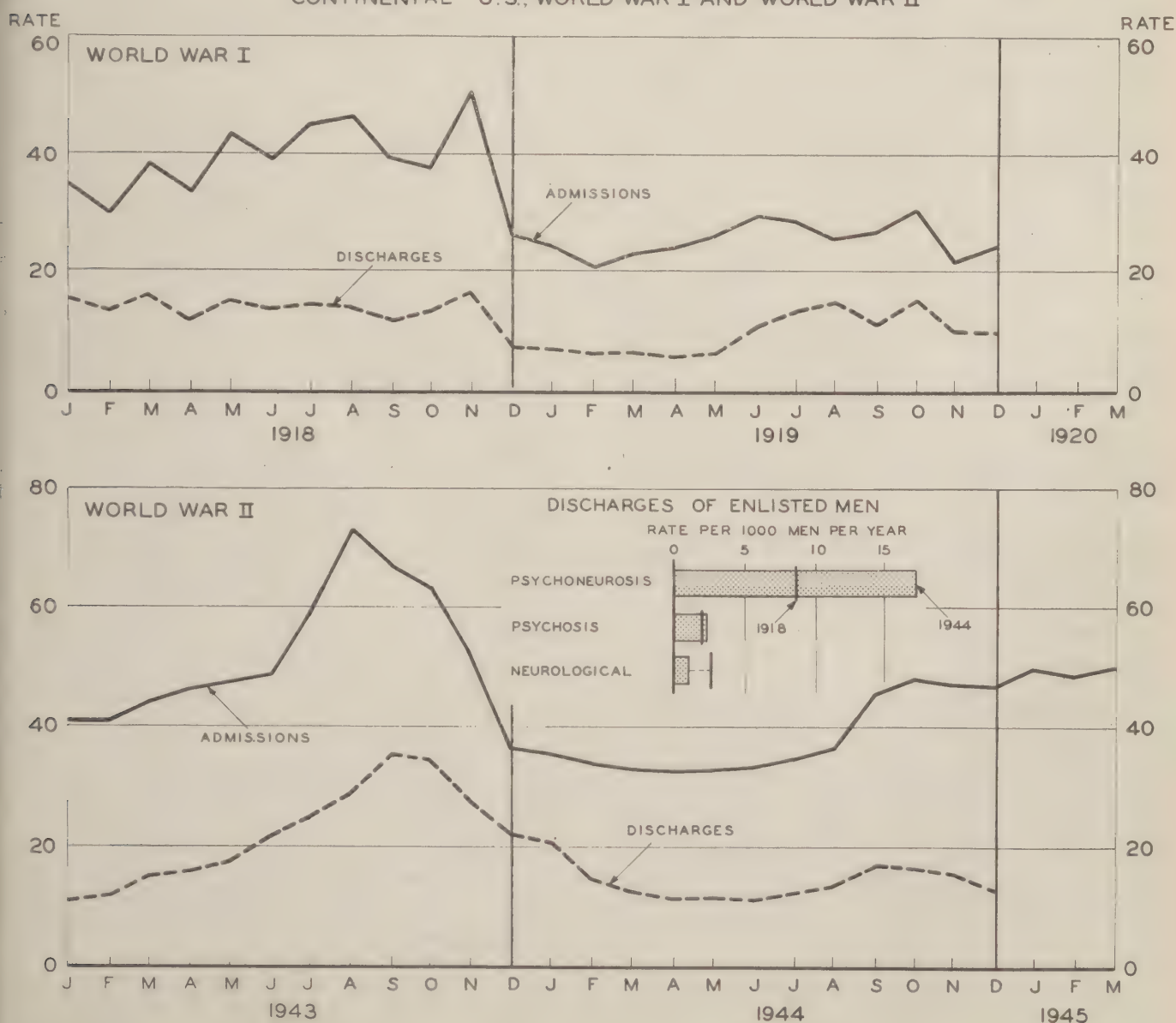
## DISEASE AND INJURY

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## NEUROPSYCHIATRIC PROBLEM IN WORLD WAR I AND WORLD WAR II (Continued)

tients admitted in the U. S. These factors are changes in administrative policy involving the utilization of manpower which have resulted in the use of non-medical criteria as the basis for defining medical disability caused by neuropsychiatric conditions. These fluctuations cannot be considered as evidence of fluctuations in actual disability even though they are reported as such statistically. Aside from this effect of administrative policy on the neuropsychiatric rates in the Zone of Interior in this war, it is believed that poor motivation and morale are the most important factors effecting higher neuropsychiatric rates in World War II.

In the last war all discharged neuropsychiatric noneffectives were given certificate-of-disability discharges. In the present war a significant number receive administrative discharges. A comparison is made in the chart below using the categories psychosis, neurological disease, and other neuropsychiatric conditions (principally psychoneurosis). In order to facilitate comparison with World War I, psychiatric components of administrative discharges have been added to the 1944 discharge rate for psychoneurosis and other neuropsychiatric conditions. It is in the latter category that the greatest difference exists between the two wars. The conditions grouped in this category are also of special interest since the incidence and relative effectiveness or noneffectiveness of personnel with these conditions is more directly influenced by administrative policy and procedure, and by morale and motivational factors than of personnel with neurological disease or psychosis. The 1944 discharge rate for these conditions is twice that for 1918.

NEUROPSYCHIATRIC ADMISSIONS AND DISCHARGES PER THOUSAND MEN PER YEAR  
CONTINENTAL U.S., WORLD WAR I AND WORLD WAR II

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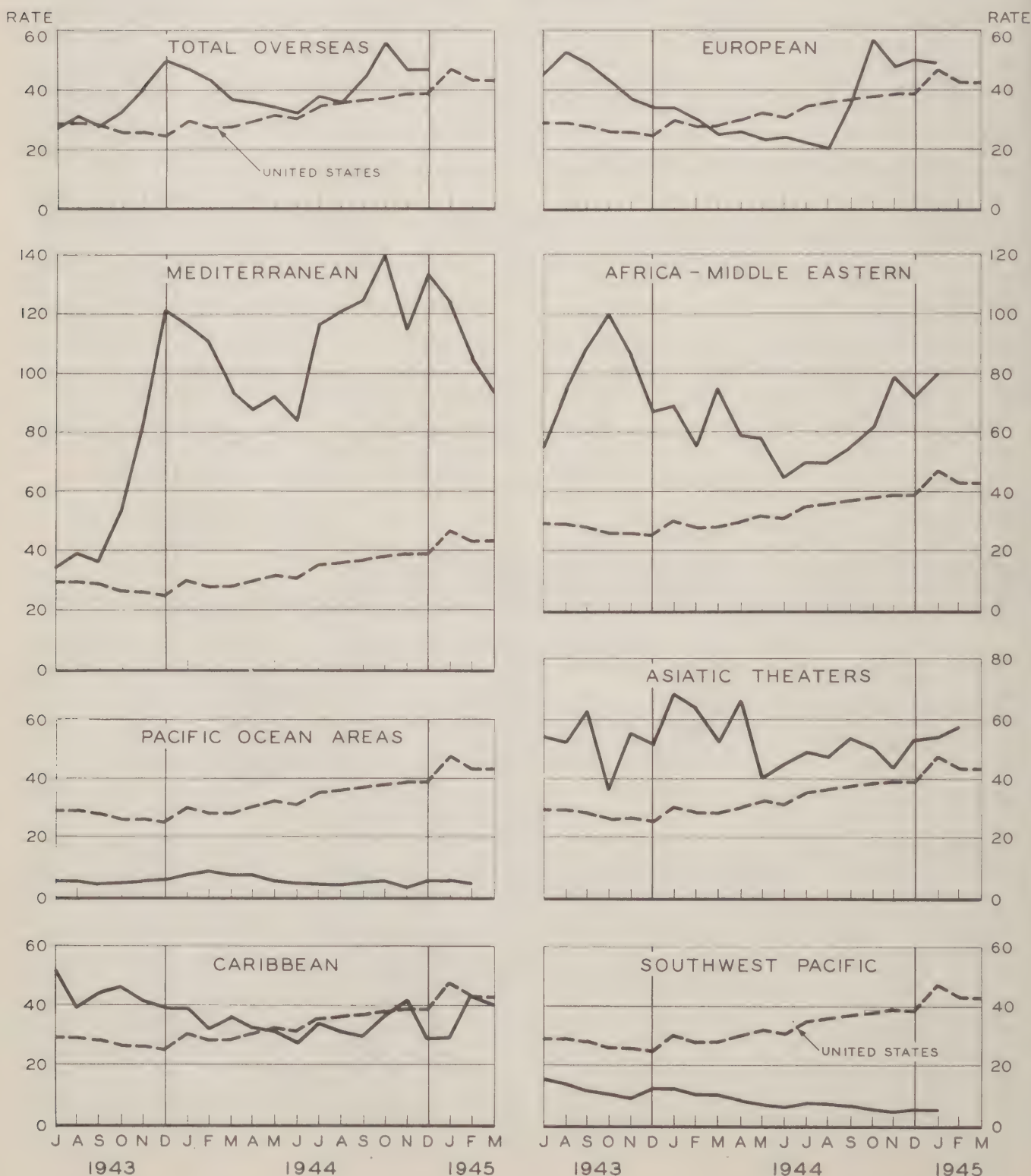


# DISEASE AND INJURY

## VENEREAL DISEASE, OVERSEAS THEATERS

Venereal disease admissions overseas have been generally upward in trend since mid-1943, although significant declines have followed the high peaks of December 1943 and October 1944. By December 1944 the admission rate had climbed to 174 percent of that for July 1943, mainly as a result of conditions in the Mediterranean and European Theaters. Although the curve for all troops abroad is largely determined by the rates of these two areas because of their preponderance of strength, in recent months venereal infection has generally increased in all theaters except the Pacific Ocean Areas and the Caribbean, perhaps in response to the same unmeasurable factors which have produced a similar rise in the rates among troops in the

## VENEREAL DISEASE, ADMISSIONS PER THOUSAND MEN PER YEAR OVERSEAS THEATERS





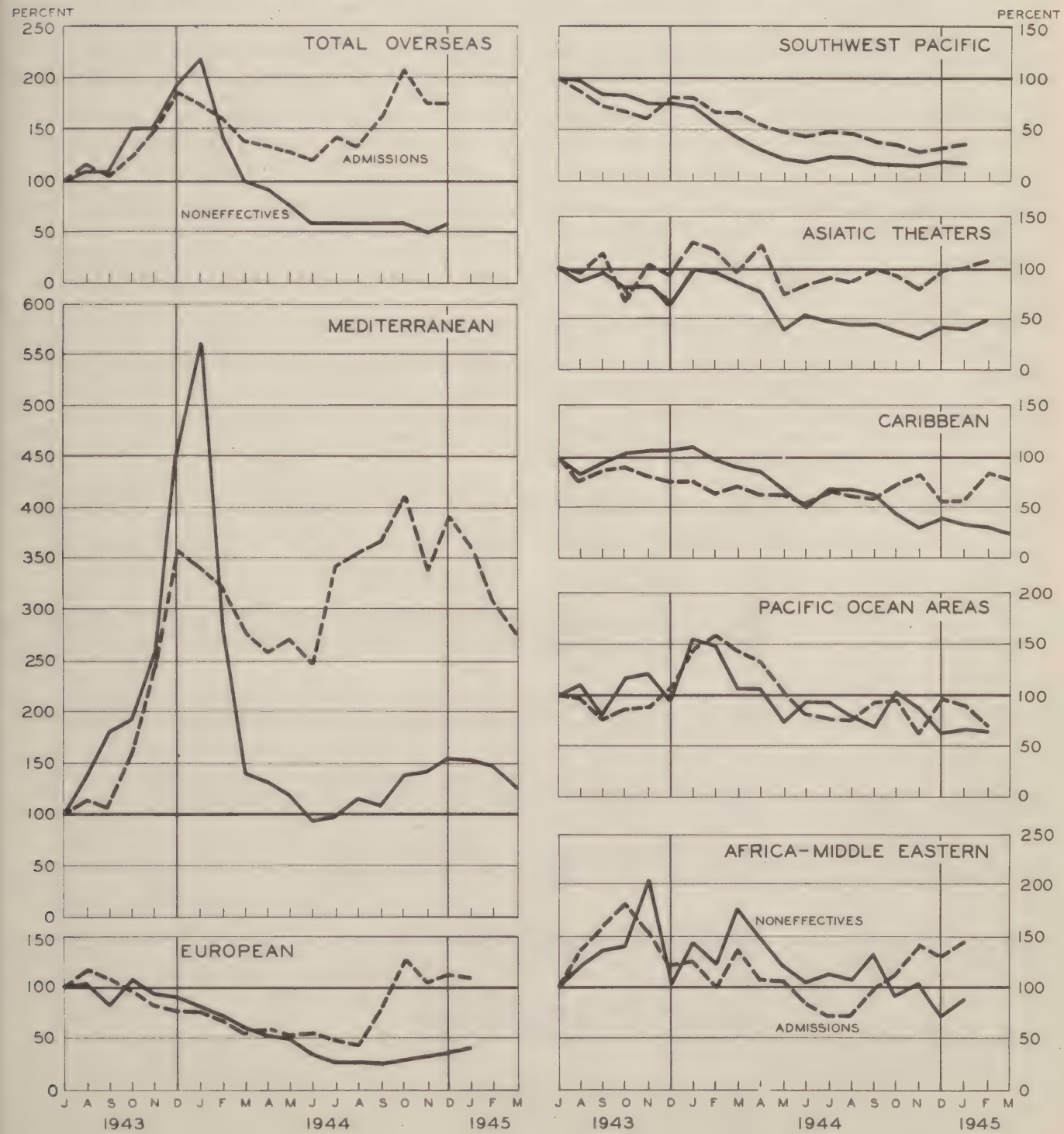
DISEASE AND INJURY

VENEREAL DISEASE, OVERSEAS THEATERS (Continued)

United States. The end of the war in Europe promises a venereal disease problem of a magnitude not yet encountered in this war and challenges the best efforts of both command and staff.

Although actual counts of admissions are not yet available, reports of increased incidence have already come from the Philippines. As the tactical situation in the Pacific area becomes more stabilized and large numbers of troops move into the environs of Manila, a situation as extreme as that which occurred in Italy following the fall of Naples can develop. Only if every known measure of control is vigorously prosecuted can such a recurrence be averted. The panels on the previous page reveal the trend of venereal disease admissions by theater since July 1943.

PERCENTAGE CHANGES IN ADMISSION AND NONEFFECTIVE RATES FOR VENEREAL DISEASE SINCE JULY 1943, OVERSEAS THEATERS





# DISEASE AND INJURY

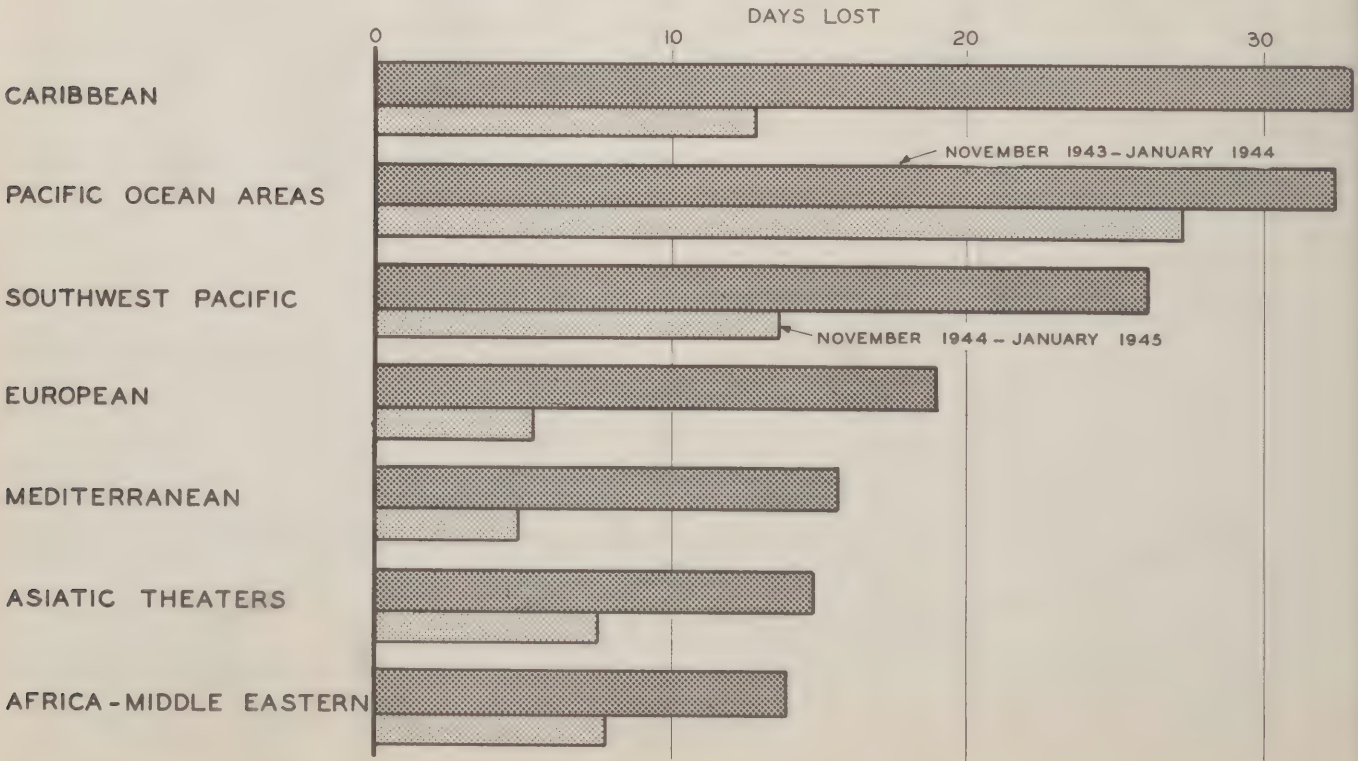
## VENEREAL DISEASE, OVERSEAS THEATERS (Continued)

Despite the fact that admission rates for venereal disease among overseas troops have been rising rapidly, noneffective rates have made spectacular declines. Under stable conditions the noneffective rate, a product of the average daily admission rate and the average number of days lost per case, should follow the same trend as the admission rate unless there is some change in average length of treatment. The divergence of the two rates in recent months measures the tremendous reductions in treatment time accomplished by use of the sulfonamides and penicillin. The charts on the previous page depict the relative changes in the admission and noneffective rates for overseas commands since July 1943. The rates are shown in index form to facilitate comparison, July 1943 being used as the base. The most dramatic reductions in days lost per case of venereal disease have occurred in the European and Mediterranean Theaters. In the European Theater, in the face of a three-fold increase in the admission rate from August to October 1944, the noneffective rate increased only five percent. The length of hospitalization, under the influence of improved therapy techniques, declined from about 20 days per case at the end of 1943 to five days in December 1944.

Similarly, in the Mediterranean Theater where the Naples epidemic, with its rapid accumulation of a backlog of untreated cases, had sent the noneffective rate soaring in January 1944, the peak October rate of 140 per thousand men per year had surprisingly little effect on the noneffective rate. The establishment of the Fifth Army Venereal Disease Diagnostic and Treatment Center early in 1944 was particularly effective in saving man-days by standardizing treatment procedures and preventing the evacuation of patients from the army area. Treatment-time for venereal disease patients in the Mediterranean Theater now averages about five days per case.

The number of days lost by the average venereal disease patient varies widely among theaters. On the whole, the Pacific theaters lag far behind the European areas in reduction of treatment time. There is an inverse correlation between length of hospitalization for venereal disease and size of the case load. Where the pressure has been greatest, treatment has been accomplished with the greatest efficiency. The chart below compares the average number of days lost per case of venereal disease during the three-month period, November 1944 through January 1945, with that for the same period of the previous year for each theater. Because the information is available on a more systematic basis and over a longer period, the days lost per patient have been computed from patients remaining reported on MD Form 86ab (now AGO Form 8-122) and agree reasonably well with those computed from the total days lost from venereal disease reported on the same form for the past year.

VENEREAL DISEASE, DAYS LOST PER PATIENT, OVERSEAS THEATERS  
NOVEMBER 1943-JANUARY 1944, AND NOVEMBER 1944-JANUARY 1945





## DISEASE AND INJURY

SECRET

REGIONAL DISTRIBUTION OF WOUNDS AND THEIR CAUSATIVE AGENTS

The availability of fairly large samples of data on the European experience makes it desirable to summarize the information on the regional distribution of wounds as well as on their causative agents. These newer data include no information on the killed and thus provide no basis for determining the relative lethality of weapons on the Western Front or the proportion of deaths among all men hit in any given body region. In addition to the data on fatality published in HEALTH for July 1944, there are only two other samples presently available, namely those for the 27th Infantry Division on Saipan and those for the 24th Corps on Leyte. In comparison with a gross fatality (percent killed among all killed or wounded) of 22 percent for Bougainville and 27 percent for Anzio, Saipan provides a percentage of 28 and Leyte one of only 19. As in some other data, these two samples carry a suggestion of higher fatality among men hit by bullets than by high explosive fragments, the percentages being 22 for bullets and 8 percent for high explosive fragments in the reported Leyte experience. The Leyte count of killed by high explosive fragments may be incomplete.

Although there have been marked changes in type of warfare, tactical methods, and weapons since the U. S. Civil War, when a careful study of wound ballistics was made, and although weapons and tactics in Europe and Asia have differed greatly, the distribution of wounds is remarkably constant. Most of the differences which appear in the summary table below probably result more from variations in the delineation of body areas than from objective variation. The agreement would be much closer if it were possible to insure use of the same precise standards for determining body region. The various distributions for wounds follow roughly the proportionate distribution of body area shown below. The distribution of hits (wounded plus killed), on the other hand, departs more widely from the distribution of body area, the head and neck being struck much more frequently than would be expected from chance (see HEALTH for July 1944). Wounds of the extremities are much more frequent, while those of the chest, head, and neck are much less frequent, than are the total hits in these regions because of the differential vulnerability of the various body regions. Among the more significant differences between the World War I and World War II wound distributions is that for

## PERCENTAGE DISTRIBUTION OF WOUNDS, BY REGION OF THE BODY \*

	Head, Face and Neck	Upper Extremities	Chest	Abdomen	Lower Extremities	Total
<u>BODY AREA</u>	12.0	22.0	16.0	11.0	39.0	100.0
<u>WORLD WAR II</u>						
European	12.5	27.3	11.4	5.2	43.6	100.0
Mediterranean	14.0	29.2	10.2	4.7	41.9	100.0
Southwest Pacific	15.1	28.1	11.5	7.8	37.5	100.0
South Pacific	20.3	26.0	13.4	7.6	32.7	100.0
Russian	9.1	28.0	11.4	6.2	45.3	100.0
Chinese	13.4	37.8	10.4	4.1	34.3	100.0
<u>WORLD WAR I</u>						
U. S.	11.4	36.2	3.6	3.4	45.4	100.0
British	16.8	30.4	7.8	4.7	40.3	100.0
<u>AMERICAN CIVIL WAR</u>	9.1	36.6	11.7	6.0	36.6	100.0

\* In order to press some of the reported samples into the five-fold classification employed here, it has occasionally been necessary to distribute a category such as "back", "spine", "other", "nerve", and the like according to the relative proportions reported in the appropriate regions of the present classification.

the chest, the U. S. percentage of 3.6 for World War I being less than half the current estimates. It will be noted that the British World War I figure is twice the U. S. percentage, and that the Civil War percentage of 11.7 is close to those for World War II. It is believed that the difference derives from variation in determining body area.

The bulk of the World War II casualties have occurred in the European and Mediterranean Theaters. For the European Theater there is available information on 64,000 wounded in the Third Army from 1 August 1944 to 1 February 1945, and data on the First Army covering 40,000 wounded during June and July 1944. For the Mediterranean Theater data are available on about 50,000 wounded admitted to Fifth Army hospitals during 1944. The accompanying charts compare



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# DISEASE AND INJURY

## REGIONAL DISTRIBUTION OF WOUNDS AND THEIR CAUSATIVE AGENTS (Continued)

the European and Mediterranean theaters with respect to regional distribution of wounds, agents causing wounds, and regional fatality. Close comparison is not warranted by the approximate nature of the original observations, and the most important point is the essential similarity of the two sets of data. Too much importance cannot be attached to the apparently greater proportion of wounds caused by bullets in the First Army, for unless fragments are located in the wound such information is typically obtained from the wounded themselves who often do not know precisely what hit them.

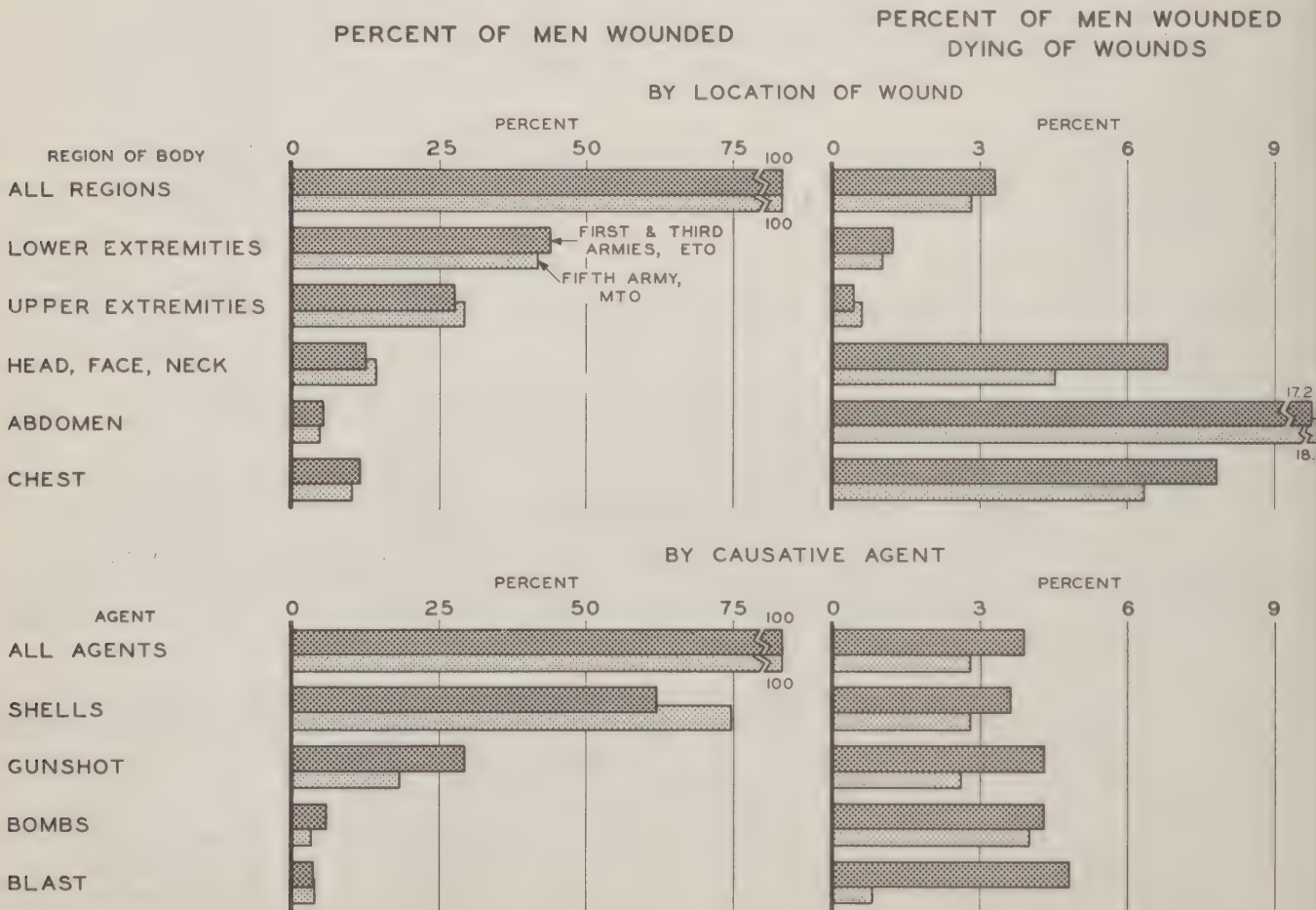
The following table summarizes the major evidence as to causative agents of wounds. Although it will be noted that the lower incidence of wounds from high explosives in the Pacific War is borne out by both the Saipan and the Leyte samples, this is not true of the Bougainville sample. The latter is small, covering only 1,500 wounded, and excludes 25 per-

PERCENTAGE OF WOUNDED HIT BY MAJOR CAUSATIVE AGENTS

Source of Data	High Explosive Fragments	Bullets	Other and Un-classified	Total	Number of Wounded
First Army, Jun-Jul 1944	67.3	29.0	3.7	100.0	39,943
Fifth Army, Jan-Dec 1944	78.1	18.1	3.8	100.0	50,778
XXIV Corps, Leyte	42.6	52.7	4.7	100.0	6,135
27th Division, Saipan	50.7	46.7	2.6	100.0	3,699
Bougainville	70.2	27.4	2.4	100.0	1,468

cent who were lightly wounded, but it is perhaps the most carefully studied of the war. More

## DISTRIBUTION OF MEN WOUNDED BY REGIONAL LOCATION AND CAUSATIVE AGENT,\* EUROPEAN AND MEDITERRANEAN THEATERS



\* Excluding men killed in action.



DISEASE AND INJURY

SECRET

REGIONAL DISTRIBUTION OF WOUNDS AND THEIR CAUSATIVE AGENTS (Continued)

than half the high-explosive group represents wounds caused by mortar shells, these having caused 43 percent of all the wounds in the Bougainville sample.

The difference in average fatality of wounds reported by the European and Mediterranean Theaters probably reflects variation in reporting the wounded who die quite soon after wounding rather than any differential success in the management of wounds. Moreover, the sample for the Mediterranean is more inclusive than that for the European Theater. The accompanying table provides a breakdown of regional location according to causative agent for 23,000 wounded received in the United Kingdom from 6 June through 20 July 1944. In the absence of marked relationship between agent and location it would be expected that the column of percentages for any single agent would be the same as that for all agents. For the most

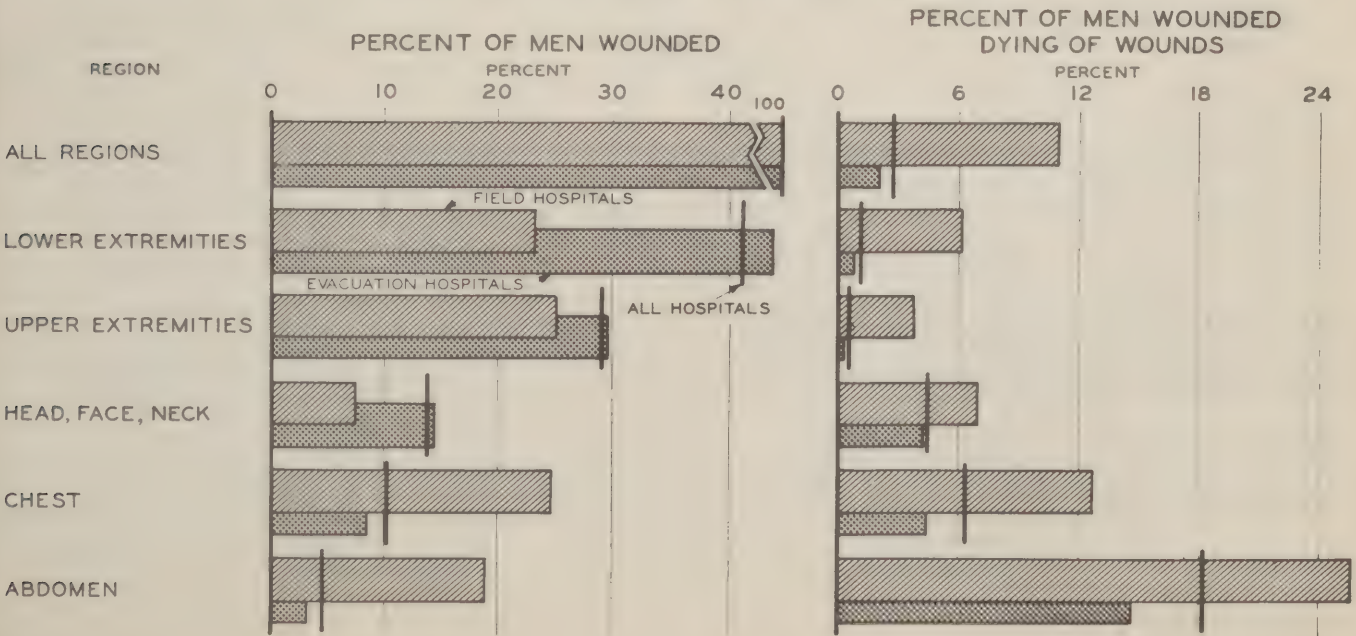
PERCENTAGE DISTRIBUTION OF WOUNDS BY LOCATION AND CAUSATIVE AGENT  
CASUALTIES RECEIVED IN THE UNITED KINGDOM, 6 June - 20 July 1944

Location	Bullet	Artillery	Other	Total
Head, Face, Neck	10.1	13.8	11.5	11.8
Upper Extremity	32.8	30.9	20.6	31.7
Abdomen and Thorax	12.9	13.3	14.4	13.1
Lower Extremity	44.2	42.0	53.5	43.4
TOTAL	100.0	100.0	100.0	100.0
NUMBER OF WOUNDED	12,176	10,593	470	23,239

part the data bear out this expectation, although the "other" category of causative agents, which includes hand-grenades, booby-traps, land-mines, aerial bombs, bayonets, etc, involves the lower extremities more frequently than other agents and the upper extremities less frequently than other agents.

For the year 1944 there is available separate information on 4,000 wounded admitted to Fifth Army field hospitals and 46,000 to Fifth Army evacuation hospitals. In view of the functional use of the field hospital in caring for nontransportable patients, uniformly higher fatality among wounded admitted to field hospitals is to be expected. The accompanying charts compare these two types of installation according to regional distribution of wounds and fatality by region. The proportions of chest and abdominal cases among field hospital admissions are exceptionally high, because patients hit in these regions of the body are less usually transportable.

COMPARISON OF WOUNDED IN FIELD AND EVACUATION HOSPITALS OF THE FIFTH ARMY, 1944 BY LOCATION OF WOUND





# DISEASE AND INJURY

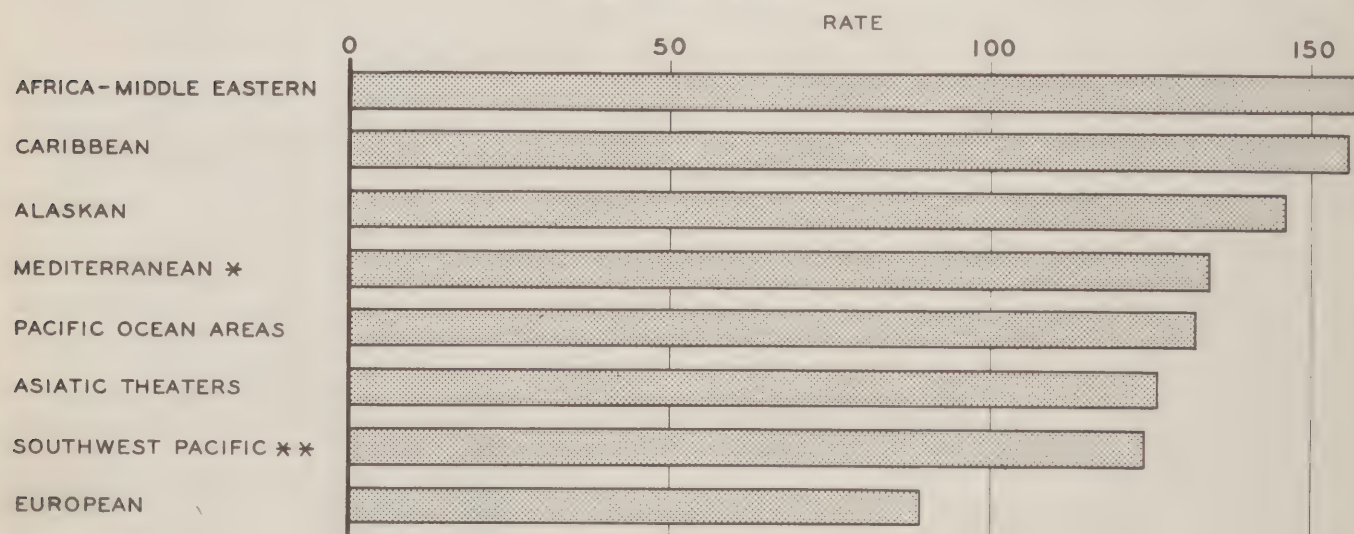
## DENTAL SERVICE OVERSEAS, 1944

The total dental work accomplished by any overseas theater depends upon many factors including: adequacy of personnel, supplies, and equipment; experience and training of dental personnel; dispersion of troops; percentage of troops in combat; percentage of dental officers working in temporary quarters; and percentage of potential dental patients located in hospitals. There is no ready statistical standard by which one can compare the relative output or efficiency of the various theaters since each operates under circumstances peculiar to itself. In the accompanying charts, therefore, the relative rank of a theater should not be taken as a measure of its efficiency in relation to other theaters.

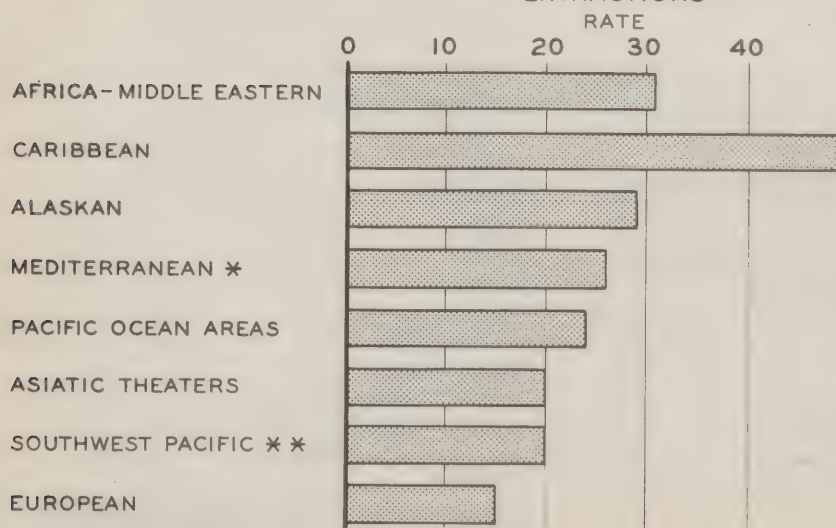
The four panels below present average rates for the year 1944 by theater, the rates being dentures constructed, dentures repaired, restorations, and extractions per 1,000 strength per month. The 1944 rates are generally highest for the Middle East and Persian Gulf Command and lowest for the European Theater. The European Theater was the most active during 1944, and its dental officers and laboratory personnel had less opportunity to do definitive dentistry. The high rate of extractions in the Caribbean is noteworthy. Whereas other overseas theaters draw personnel entirely from the Z/I, many Puerto Ricans have been inducted into the Army, and are stationed in the Antilles. The need for extraction is very extensive among Puerto Ricans inducted into the Army.

## DENTAL ADMISSIONS AND TREATMENTS PER THOUSAND MEN PER MONTH OVERSEAS THEATERS 1944

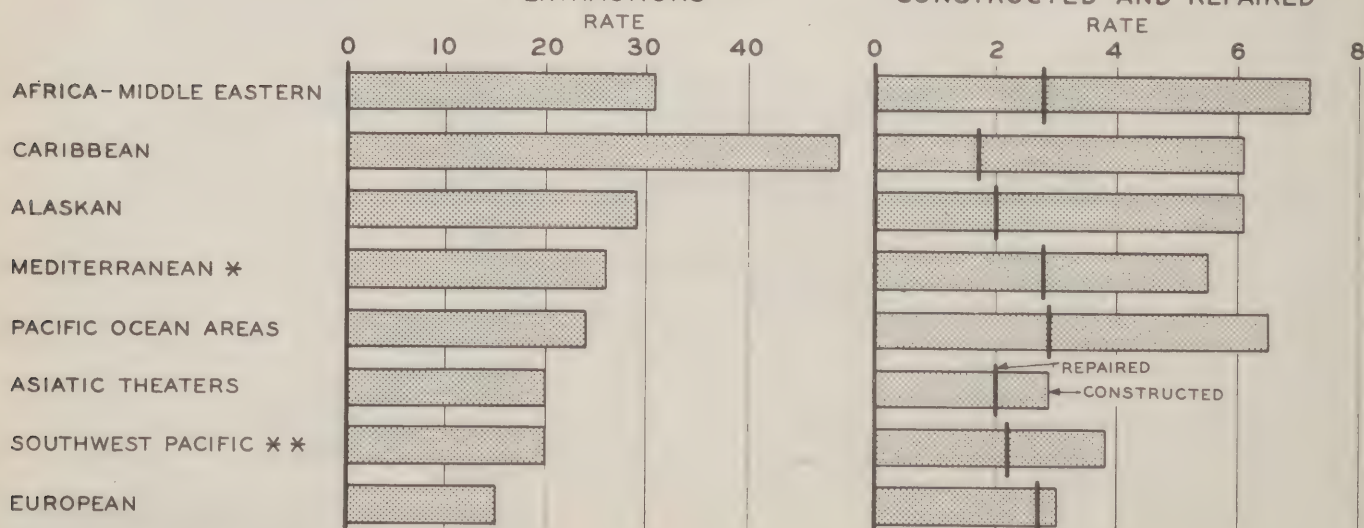
### RESTORATIONS



### EXTRACTIONS



### DENTURES CONSTRUCTED AND REPAIRED



\* January - August only  
\*\* April - December only



## DISEASE AND INJURY

RESTRICTED

### HEALTH BRIEFS

#### Infectious Hepatitis

Epidemiologic reports from Paris indicate that infectious hepatitis is increasing rapidly among forces on the Continent, and that it is now second only to neuropsychiatric disorders as a nonbattle cause of hospital admissions. During the week ending 6 April, 1965 cases were admitted, the highest number for any similar period since D-Day. The rising incidence was first noted last November after the transfer of the Seventh Army from Italy and most of the cases occurred among these troops until recently. However, the disease is now being reported frequently in divisions of Seventh Army which did not serve in Italy and cases have occurred sporadically in other armies. The admission rate for the theater as a whole climbed to 12.7 per thousand men per year during March from 2.1 last October.

In the Philippines, hepatitis has now reached epidemic proportions. Admissions rose from 2.3 per thousand men per year in November to 62.8 during January. Provisional telegraphic reports indicate that incidence reached a peak of 110 per thousand men per year during February but declined to about 80 during March.

#### Poliomyelitis

Because the military incidence of poliomyelitis usually is proportionate to that in the civilian population, although at a lower level, it is significant that the United States civilian incidence thus far this year has been higher than in the same period of any recent year. The excess of civilian cases in this off-season period has been greatest in New York State, and in the South Atlantic and East South Central regions. An unusually severe outbreak of the disease occurred in late March and early April among troops at Fort McClellan, Alabama, with 21 cases and three deaths. Except for this outbreak, military cases have been few and widely scattered.

The incidence of poliomyelitis overseas has been slightly higher than in the United States, five cases per 100,000 per year in 1944 as compared with four in the United States, but the Asiatic theaters had a rate of 22. A sharp outbreak occurred in the Palo-Tacloban area following the invasion of the Philippine Islands, 62 cases and 16 deaths having been reported through January 1945. The January rate for the Southwest Pacific was about 40 per 100,000 men per year.

#### Streptococcal Infections

During the past winter respiratory infections caused by the hemolytic streptococcus, e.g. scarlet fever and streptococcal sore throat, have been rather infrequent among troops in the United States. Since the criteria for diagnosis of streptococcal sore throat are quite variable and reporting is incomplete, the best available index for estimating the prevalence of streptococcal disease over the country is scarlet fever. The peak incidence of scarlet fever this year occurred in February with a rate of 2.8 admissions per thousand men per year. In comparison, the 1944 peak rate was 4.8 in March and the 1943 peak, reached in April, was 7.0. In March 1945, the incidence of rheumatic fever, which is related to streptococcal infection, was 1.0, about half that for the same month last year.

In 1942 and 1943 the streptococcal disease problem was most acute in the Seventh Service Command, rates for both scarlet fever and rheumatic fever being considerably higher than in any other Service Command. In 1944, and thus far in 1945, the highest incidence of scarlet fever has shifted to the Sixth Service Command, the Seventh taking second place. The same shift has occurred in rheumatic fever during 1945.

In a few stations, sharp outbreaks of streptococcal infections occurred in February and March of this year. At Keesler Field, Mississippi, and Amarillo Army Air Field, Texas, a strain of type 17 streptococcus against which sulfadiazine was ineffective prophylactically or therapeutically, produced outbreaks with an appreciable incidence of severe complications. These outbreaks have now subsided.

From available reports, streptococcal diseases have not been a serious problem in any overseas area.

RESTRICTED



# HOSPITALIZATION

## EVACUATION POLICY AND HOSPITAL REQUIREMENTS IN FORWARD AREAS

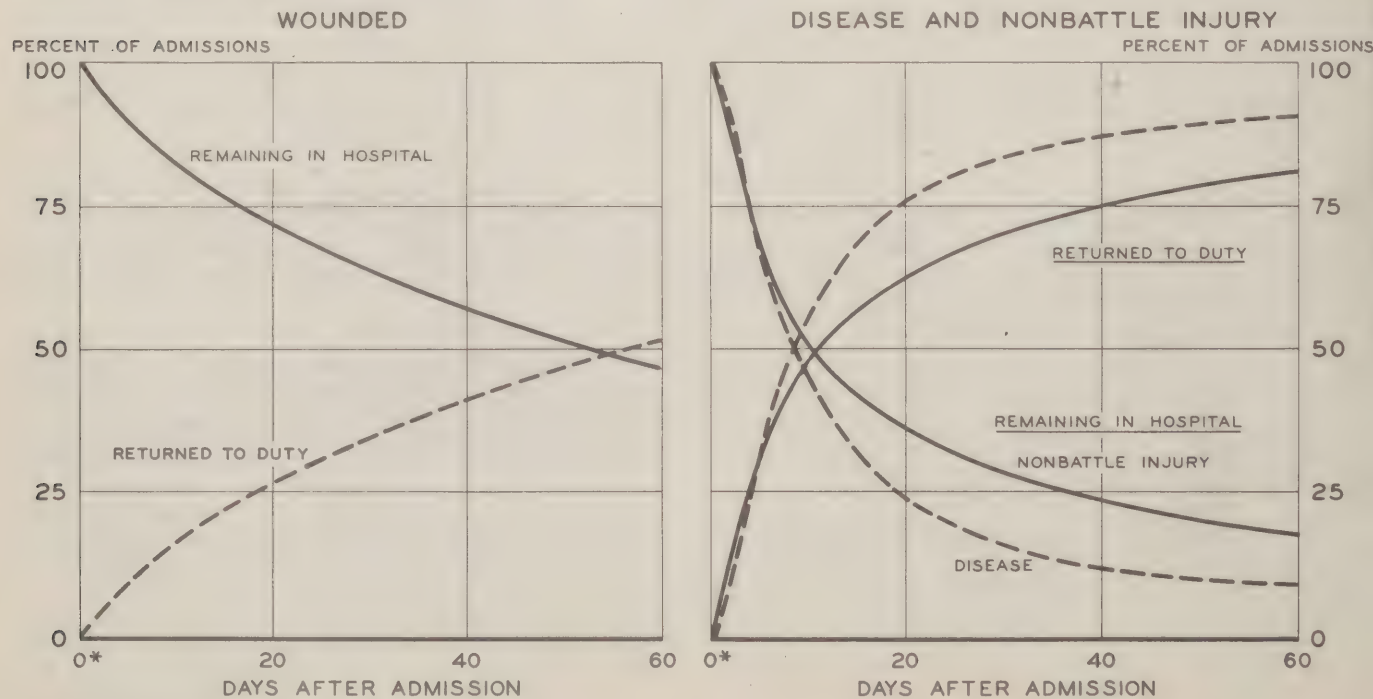
An evacuation policy for a forward area, or for a theater, may be defined most easily in terms of the proportion of the original admissions who will be evacuated from the area, e. g. from the army area to the Communications Zone or from the theater to the Z/1, although it is more usual to specify a particular policy by the maximum length of time allowed for treatment at the echelon in question prior to evacuation. The proportion to be evacuated is determined as that part of an initial set of admissions who would still be under treatment any predetermined number of days after admission if evacuation were not arranged.

An important fact to bear in mind in discussing evacuation policies is that length of treatment is counted from the date of admission to the first medical installation, and not from the date of admission to each particular hospital in turn. An evacuation policy of 30 days for an army means that all cases needing 30 days or more of treatment at any and all echelons are to be evacuated. Moreover, once a determination of the necessity for their evacuation has been made, patients are to be evacuated as soon as they become transportable and transportation is made available. Rigid adherence to an evacuation policy of 30 days thus operates to evacuate patients as soon after admission as possible and after no longer than 29 full days of treatment. In theory, under a strict 30-day policy, no patients would be in army hospitals on the 30th day after their original admission.

The charts below provide the basic data which determine the relative loss and yield of evacuation policies of stated length for hospital admissions to army installations. The series are based upon the experience of patients admitted to hospital in North Africa during the first six months of 1943, wherever their subsequent hospitalization. Separate curves are shown for the three major causes of admission and for patients returned to duty or remaining under treatment at any one time. The status of the patients is shown for only the first 60 days of treatment, the period which is most germane to a consideration of hospitalization and evacuation in forward areas. In order to determine the proportion of admissions who will be evacuated under a policy of any stated length it is necessary only to erect a vertical line at the desired point on the horizontal scale to see where it cuts the remaining curve and thus tells what proportion of the original admissions will be remaining under treatment at the beginning of the day specified by the policy. Conversely, it is possible to determine the evacuation policy associated with a given proportion of admissions who were evacuated. For example, according to the charts below, a 30-day policy is equivalent to the evacuation of 16 percent of all disease admissions, 28 percent of the nonbattle injury admissions, and 64 percent of the wounded, for these proportions would be remaining under treatment at the end of 29 days.

## HOSPITALIZATION AND DISPOSITION OF ADMISSIONS IN FORWARD AREAS

NORTH AFRICAN ADMISSIONS, JANUARY - JUNE 1943





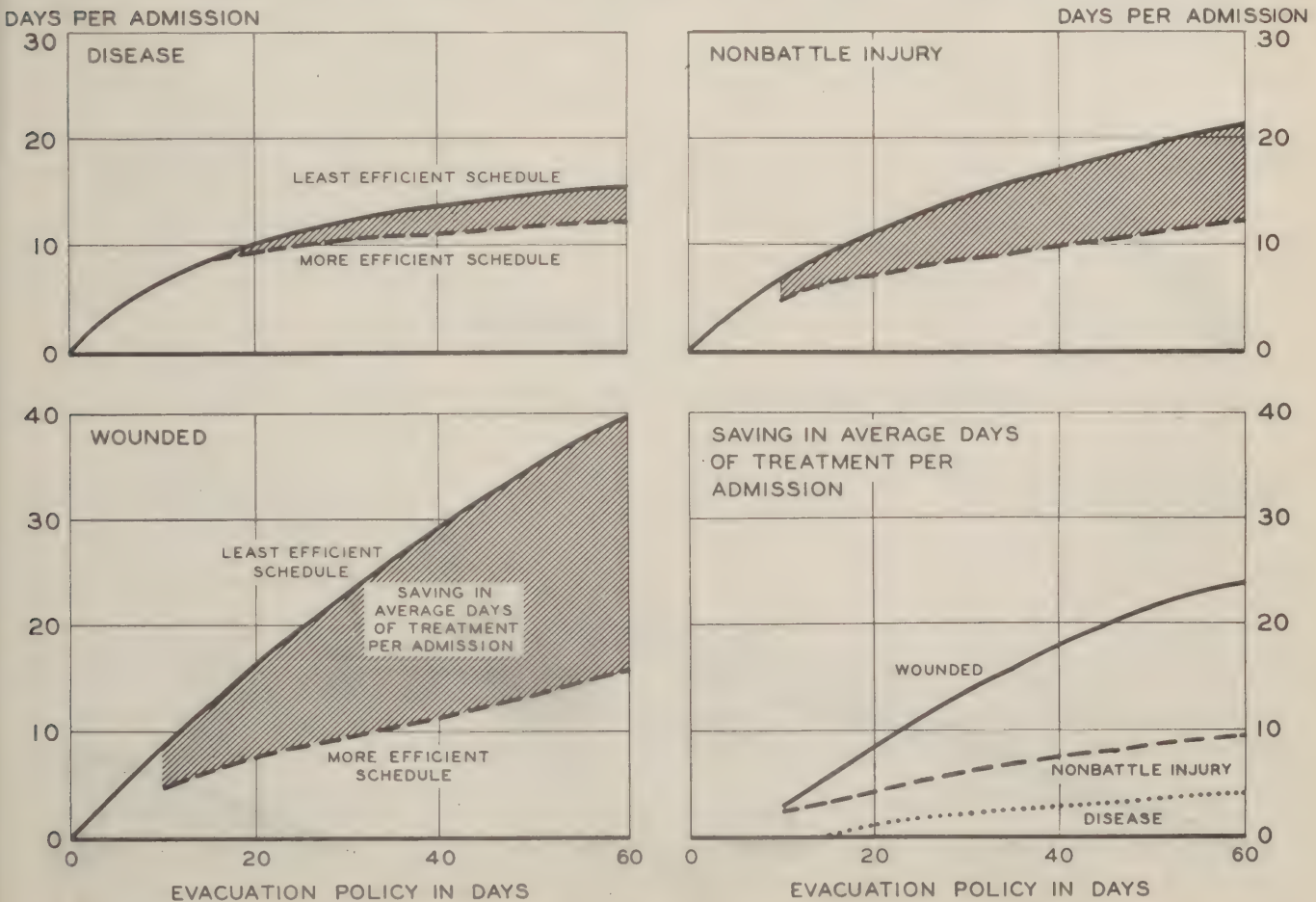
# HOSPITALIZATION

## EVACUATION POLICY AND HOSPITAL REQUIREMENTS IN FORWARD AREAS (Continued)

The efficient management of evacuation is essential to the proper provision of medical care at the first three echelons of medical treatment, those in the army area. It is not possible to provide a plethora of beds to any army, for it must preserve its mobility. In order to have beds available at all times for new admissions a certain amount of evacuation is necessary, the amount to depend upon the need for empty beds. Under emergency conditions an evacuation policy may be very low, even approaching zero. A case in point is the landing of the First Army in Normandy. During the first four days of the operation about 84 percent of all wounded (and 90 percent of all admissions were wounded) were evacuated to the U.K. This represents an evacuation policy of about 8 days. Although all casualties needing more than a given number of days of treatment should be evacuated as soon as they are transportable, lack of facilities for transportation or lack of immediate pressure on the supply of hospital beds is often in conflict with this principle. There are many methods by which an evacuation policy may be put into effect, and they are all measurable by the average number of days of treatment of the evacuees prior to evacuation. The least efficient schedule of evacuation is one which holds all evacuees until the end of the period specified by the policy, e.g. 14 days for a 15-day policy. In contrast, the most efficient schedule is the one which provides for the evacuation of patients as soon as possible once it can be determined that they are to be evacuated. A large saving in length of treatment in the army area and thus in beds required to support a given evacuation policy, or in replacements needed if the policy can be lengthened with the same amount of hospitalization, may be made by reducing the average length of time prior to evacuation.

The first three charts below show the average days per admission for the least efficient evacuation schedules and for schedules which may be termed more efficient and which imply shorter periods of stay for evacuees. The shaded areas show the saving in days effected by the more efficient schedules. The fourth panel compares these savings for the three diagnoses, disease, nonbattle injury, and wounded. The following table contains the set of shorter average lengths of stay for evacuees used in the computations which follow, according to the length of the evacuation policy. These averages were determined by consider-

AVERAGE DAYS OF TREATMENT IN ARMY AREA  
FOR EVACUATION POLICIES OF VARIOUS LENGTHS





HOSPITALIZATION

EVALUATION POLICY AND HOSPITAL REQUIREMENTS IN FORWARD AREAS (Continued)

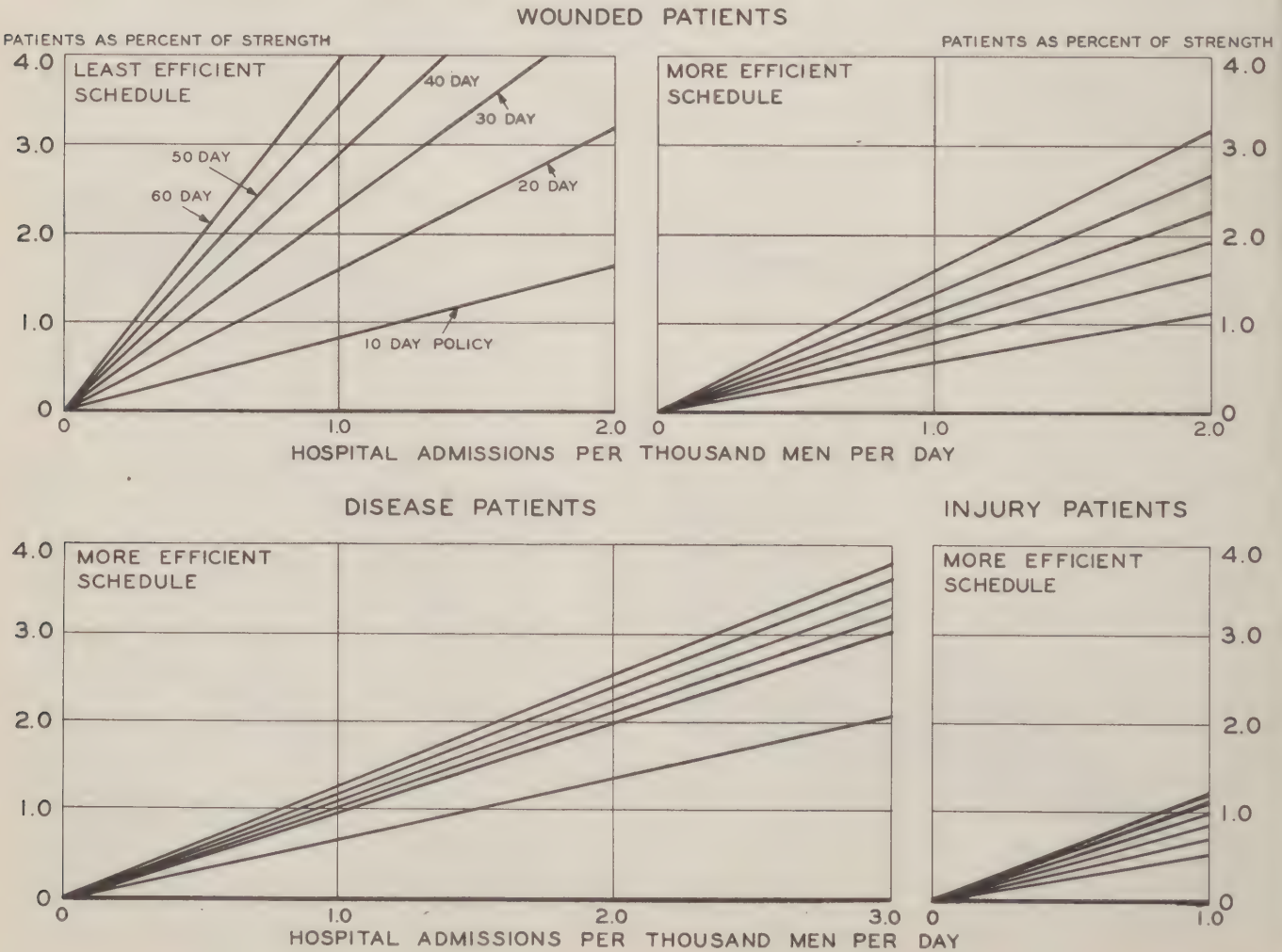
ASSUMED AVERAGE LENGTH OF STAY OF EVACUATED PATIENTS IN ARMY AREA  
BY TYPE OF EVACUATION SCHEDULE

Average Length of Stay, in Days				
Least Efficient Schedule		More Efficient Schedule		
Length of Evacuation Policy in Days	All Patients	Length of Evac- uation Policy in Days	Type of Patient	
			Disease	Wounded or Injured
10	9	10 through 14	$\frac{1}{1}$	5.8
15	14	15 through 19	$\frac{1}{1}$	7.4
20	19	20 through 24	17.0	7.8
25	24	25 through 29	17.5	8.0
30	29	30 through 39	18.0	8.5
40	39	40 through 49	19.0	8.5
50	49	50 through 59	20.0	8.5
60	59	60 and more	21.0	8.5

$\frac{1}{1}$  One less than the number of days in the policy.

ing the average number of days between admission and the time a patient becomes transport-  
able. the averages for disease patients are uniformly higher than those for the wounded and  
injured. Only the most serious disease patients are evacuated from the army area, by and  
large, and the average period of time before these patients become transportable is longer  
than the average for the surgical patients. In the absence of good observational data on the

PATIENTS IN HOSPITAL IN ARMY AREA FOR VARIOUS EVACUATION POLICIES AND  
HOSPITAL ADMISSION RATES FOR MAJOR DIAGNOSES





## HOSPITALIZATION

CONFIDENTIAL

## EVACUATION POLICY AND HOSPITALIZATION REQUIREMENTS IN FORWARD AREAS (Continued)

subject it is possible that the averages in the table are on the optimistic side but nevertheless they serve to illustrate the mechanism which is operating. Under a 30-day policy the saving in treatment time in the army area should amount to about 13 days for wounded patients, 6 days for nonbattle injury patients, and 2 days for disease patients, with correspondingly larger savings associated with the use of the more efficient schedules under longer evacuation policies.

Since, under stable conditions, the hospital population tends to equal the average daily admission rate multiplied by the average length of hospitalization, it is easy to construct lines showing the expected hospital population for any admission rate and any evacuation policy with a defined schedule for evacuating patients. The top panels on page 20 for wounded show how great are the differences in expected patient populations when the more efficient and the least efficient evacuation schedules are assumed. For example, for a hospital admission rate of 1.0 and an evacuation policy of 20 days, the expected patient population for wounded is .78 percent of strength if the more efficient schedule is followed and 1.6 percent if the least efficient schedule is employed. The bottom two panels give the expected percentage of strength in hospital in the army area for disease and nonbattle injury patients according to rate of admission to hospital and evacuation policy, assuming the more efficient schedules with average values as specified in the table above. The use of these data may be illustrated by the development of a set of estimates of the probable size of the hospital population of an army in the European Theater based upon the experience of the recent campaign. This is done in the following table. In the development of such estimates it is essential that the total be derived from the sum of separate estimates for at least disease, nonbattle injury, and wounded patients, for their hospitalization needs are entirely different. The accompanying illustration should be viewed as a demonstration of method only.

COMPUTATION OF PATIENT LOAD IN HOSPITALS

Factor	Diagnosis			
	Disease	Nonbattle Injury	Wounded	Total
Percent Evacuated <u>1/</u>	46.2	69.5	87.4	-
Evacuation Policy, Days <u>2/</u>	10.0	10.0	10.0	-
Admissions to Hospital per 1,000 Men per Day <u>3/</u>	1.0	0.5	0.8	-
Expected Patient Load as Percentage of Strength <u>4/</u> by Evacuation Schedule				
Least Efficient	0.65	0.33	0.66	1.64
More Efficient	0.65	0.20	0.44	1.29

- 1/ Average experience of First Army. See tables on pages 24 and 25.
- 2/ Increased from 6 for injury and 8 for wounded which may be read from charts on page 18. The values have been increased in this case to take into account the possibility that the average lengths of stay for evacuees shown in the table on page 20 may be too low.
- 3/ Admission rates per 1,000 men per day based on experience of field forces in the European Theater from 13 January 1945 through 9 February, a low period.
- 4/ Read from charts on page 20 for different evacuation policies, using admission rates given.

In order to expand the estimate of the hospital population into an estimated need for hospital beds in mobile and convalescent units, an appropriate inflation factor must be applied. This factor must take into account the dispersion of beds within hospitals, the average loss of facilities occasioned by the movement of units in a fluid tactical situation, and the maintenance of any necessary reserves. On the basis of the illustration in the table above, for example, and an arbitrary inflation factor of 2.5, the application of the more efficient evacuation schedule would reduce the beds needed to support the least efficient evacuation schedule by .88 percent of strength, or about four 400-bed evacuation or field hospitals for an army of 200,000 men. Conversely, the evacuation policy might be lengthened to permit these two units to be utilized in returning a higher proportion of patients to duty in the army area.



# HOSPITALIZATION

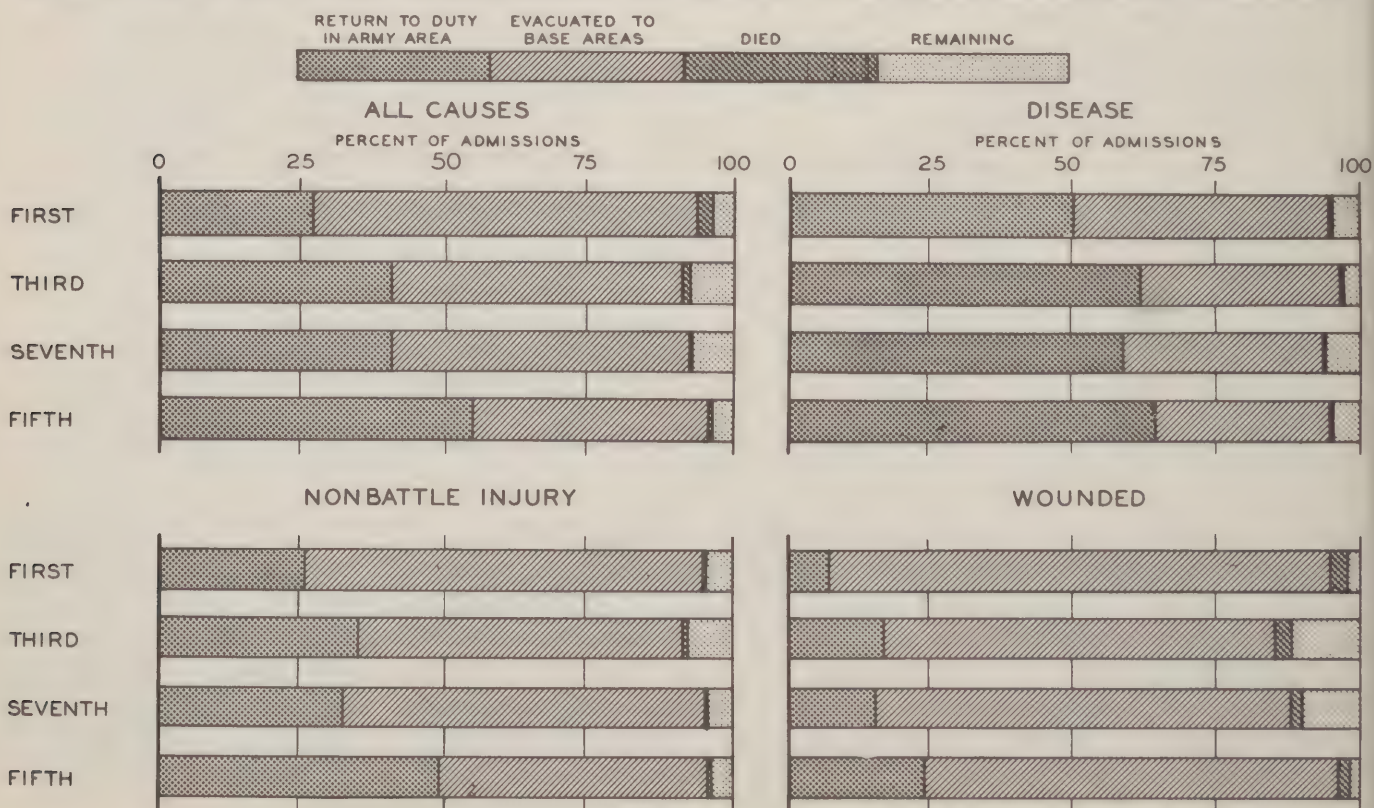
RESTRICTED

## DISPOSITION OF ADMISSIONS IN FORWARD AREAS

The primary mission of the Medical Department in forward areas is to maintain the effectiveness of the Army at the maximum level by minimizing the drain on military manpower from illness and injury. This task resolves itself into two complementary parts. On the one hand sickness and nonbattle injury must be prevented to the greatest possible extent, and on the other those who become noneffective must be returned to duty as quickly and in as great numbers as possible. The various echelons of medical service have been arranged so as to perform this function by differentiation of service and care according to the duration and severity of the disabilities requiring treatment. While, on the one hand, the evacuation of patients from a combat area diminishes the need for forward treatment facilities, it not only increases the need for replacements but also diminishes the chance of returning recovered patients to duty with their original units. This is caused not only by the psychology of leaving the combat zone but also by the physical factors of time, space, and military channels, so that at times the army surgeon may look upon base area hospitals as a huge maw into which he continually pours manpower without receiving much in return. For this reason increasing attention has been given overseas to the chance of holding in the army area larger proportions of patients than previously, and to the possible need for changes in the typical plan of hospitalization in order to accomplish this purpose. Improvisations have been made which appear to have been highly successful, and it is believed that the development is a wholesome one of distinct military value. On the other hand, it does not imply a need for the wholesale creation of entirely new T/O units, for the establishment of numerous specialized hospital units would impair the necessary flexibility of the hospitalization plan in the army area. It does, however, suggest that anything which could at this late date be done to enhance the adaptability of the basic Army units might well enhance the already considerable contribution of the Medical Department to the conservation of fighting strength in the army area.

The proportion of disease, injury, and wounded patients who are evacuated to the rear is governed, if only theoretically, by an evacuation policy determining the disposition of patients whose treatment will require an established minimum number of days after first admission. The time specified by the policy depends upon the tactical situation, the supply of mobile beds available, the way in which bed facilities are deployed and utilized, the distance to the rear, the transportation facilities available, the extent of facilities available in the rear, and the location of better trained personnel and more adequate equipment. The evacuation policy for an army also fixes the number of patients who can be returned to duty directly by medical installations in the army area. The basic elements of an

## DISPOSITION OF ARMY ADMISSIONS, EUROPEAN AND MEDITERRANEAN THEATERS





## HOSPITALIZATION

SECRET

## DISPOSITION OF ADMISSIONS IN FORWARD AREAS (Continued)

army evacuation policy are discussed on pages 18 to 21.

During the past year the armies in the European and Mediterranean Theaters have returned to duty directly without evacuation from the areas under their control from 50 to 70 percent of all disease admissions, from 25 to 50 percent of nonbattle injury admissions, and from 10 to 30 percent of the wounded. For the various armies in the European Theater, for the Fifth Army and the II Corps in the Mediterranean Theater, and for two amphibious operations, the tables on the following pages show the proportions of admissions returned to duty, evacuated, dead, and remaining at the end of the various periods.

Although primary interest attaches to the experience of the various armies, even the fragmentary data available on other echelons are of considerable interest. It will be noted that in Tunisia and Sicily II Corps returned patients to duty at a rate which would be expected for an army, whereas in Italy it returned to duty far lower proportions. This is because in Tunisia and Sicily II Corps had attached to it hospital units normally under an army. Without more divisional data the apparently high rate of return to duty accomplished by the 34th Infantry Division in Tunisia cannot be evaluated. Because of the nature of the operation and the organization of the task force, the 27th Division on Saipan had a field hospital and provided a higher level of medical care than is usual for a division assigned to an army in the field. In this respect it is more like the Attu and Marshall Islands experience.

The average experience of the four armies is shown in chart form on page 22 by broad diagnostic groups of patients for the periods specified in the foregoing tables. The averages for the First Army include the initial landing experience in Normandy before the normal amount of hospitalization could be made available on the beachhead, but exclusion of the June-July period makes too little difference in the averages to necessitate the change. As stated above, many factors enter into the determination of these percentages, and it cannot be inferred that one army operated more efficiently merely because it returned a higher percentage to duty. The less rapidly an army moves, the lower the reserve of beds it must keep for tactical emergencies, and the more beds it has in relation to its admissions, the higher should be its proportion of admissions returned to duty. For shorter periods than those shown in the foregoing tables it is possible to indicate roughly the relation between the means available to each army and the load thrust upon it by admissions, as may be seen from the following table for the four armies. Although the average ratio of mobile (includ-

RATIOS OF MOBILE BEDS TO STRENGTH, RATIOS OF ADMISSIONS TO BEDS,  
AND PERCENTAGES OF ALL ADMISSIONS RETURNED TO DUTY

Army and Period	T/O Mobile Beds* as Percentage Of Strength	Admissions Per Mobile Bed* Per Week	Percentage Of All Ad- missions Returned To Duty
FIRST Oct 1944 - Mar 1945	3.1	0.78	27
THIRD Oct 1944 - Mar 1945	3.7	0.70	44
FIFTH Aug 1944 - Dec 1944	5.7	0.47	51
SEVENTH Dec 1944 - Mar 1945	3.9	0.61	41

\* Includes T/O convalescent bed capacity. On the average each army had one convalescent hospital during this period. Both bed capacity and strength are measured on an assigned basis.

ing convalescent) bed capacity to strength was higher for the Third than for the First Army, the former had a slightly higher admission rate over the period of observation and experienced almost the same rate of admission per mobile bed. However, with only 10 percent more beds per admission the Third Army returned to duty 60 percent more than the First Army and almost as many as the Fifth Army, where special efforts have been devised for returning to duty in the army area the greatest possible number without evacuation to base areas, where the tactical situation has been less active, and where the bed capacity has been higher in terms of assigned strength. However, the Fifth Army has shown a constant improvement in the course of the past 15 months with regard to the proportion of its admissions returned to duty. The table below shows the percentage disposition of admissions for three readily available intervals of the Fifth Army's experience.



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HOSPITALIZATION

DISPOSITION OF ADMISSIONS IN FORWARD AREAS (Continued)

DISPOSITIONS IN FORWARD AREAS FOR VARIOUS ECHELONS AND CAMPAIGNS

Operation and Unit	Period	Number of Admissions	Percent of Admissions 3/			
			Returned to Duty	Evacuated	Died	Remaining
DISPOSITION OF ALL ADMISSIONS						
ARMIES						
First	6 Jun '44-23 Mar '45	328,812	27.3	68.4	1.6	2.7
Third	1 Aug '44-23 Mar '45	234,088	41.2	50.9	1.4	6.5
Seventh	18 Nov '44-16 Mar '45	101,598	41.4	51.6	0.8	6.2
Fifth	29 Jul '44-30 Mar '45	122,373	55.8	40.9	0.5	2.8
CORPS						
II, Tunisia	1 Jan '43-15 May '43	17,377	25.7	70.8	0.9	2.6
II, Sicily	10 Jul '43-17 Aug '43	11,361	20.2	70.7	1.4	7.6
II, Italy	17 Nov '43-31 Dec '44	117,583	12.3	86.4	0.3	0.9
DIVISIONS						
1st Arm. 1/	1 Jan '44-31 Dec '44	15,925	8.2	86.6	0.3	5.0
34th Inf. 1/	9 Feb '43-11 May '43	3,189	14.4	83.7	0.2	1.7
27th Inf. 2/	15 Jun '44-22 Jul '44	4,274	50.2	46.6	3.2	-
AMPHIBIOUS OPERATIONS						
Attu Island	8 May '43- 4 Jun '43	3,280	39.4	32.2	0.3	28.1
Marshall Islands	31 Jan '44- 5 Feb '44	1,242	32.9	65.9	1.2	-

DISPOSITION OF ADMISSIONS FOR DISEASE

ARMIES						
First	6 Jun '44-23 Mar '45	132,034	50.2	46.2	0.0	3.6
Third	1 Aug '44-23 Mar '45	112,453	62.5	35.2	0.0	2.3
Seventh	18 Nov '44-16 Mar '45	52,179	59.5	35.2	0.0	5.3
Fifth	29 Jul '44-30 Mar '45	87,670	64.1	32.8	0.0	3.1
CORPS						
II, Tunisia	1 Jan '43-15 May '43	7,415	39.4	56.7	0.0	3.9
II, Sicily	10 Jul '43-17 Aug '43	6,079	28.2	62.2	0.1	9.5
II, Italy	17 Nov '43-31 Dec '44	74,374	16.5	82.4	0.0	1.1
DIVISIONS						
1st Arm. 1/	1 Jan '44-31 Dec '44	9,599	8.4	91.0	-	0.6
34th Inf. 1/	9 Feb '43-11 May '43	1,333	22.8	73.4	-	3.8
27th Inf. 2/	15 Jun '44-22 Jul '44	1,158	Not Available			
AMPHIBIOUS OPERATIONS						
Attu Island	8 May '43- 4 Jun '43	1,814	55.3	16.9	-	27.8
Marshall Islands	31 Jan '44- 5 Feb '44	41	48.8	51.2	-	-

1/ Mediterranean Theater  
2/ Saipan  
3/ The dash is used to denote none, the zero to denote less than 0.5 percent.



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## HOSPITALIZATION

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## DISPOSITION OF ADMISSIONS IN FORWARD AREAS (Continued)

## DISPOSITIONS IN FORWARD AREAS FOR VARIOUS ECHELONS AND CAMPAIGNS

Operation and Unit	Period	Number of Admissions	Percent of Admissions 3/			
			Returned To Duty	Evacuated	Died	Remaining
DISPOSITION OF NONBATTLE INJURY ADMISSIONS						
ARMIES						
First	6 Jun '44-23 Mar '45	45,231	25.9	69.5	0.5	4.1
Third	1 Aug '44-23 Mar '45	29,215	35.5	56.4	0.9	7.2
Seventh	18 Nov '44-16 Mar '45	19,094	32.6	63.0	0.4	4.0
Fifth	29 Jul '44-30 Mar '45	14,219	49.7	46.3	0.8	3.2
CORPS						
II, Tunisia	1 Jan '43-15 May '43	3,154	27.4	67.8	0.5	4.3
II, Sicily	10 Jul '43-17 Aug '43	1,373	23.5	66.8	0.7	9.1
II, Italy	17 Nov '43-31 Dec '44	11,451	8.9	89.6	0.3	1.3
DIVISIONS						
1st Arm. 1/	1 Jan '44-31 Dec '44	1,921	6.4	90.4	0.3	2.9
34th Inf. 1/	9 Feb '43-11 May '43	437	16.2	81.7	1.1	0.9
27th Inf. 2/	15 Jun '44-22 Jul '44	168	Not available			
AMPHIBIOUS OPERATIONS						
Attu Island	8 May '43- 4 Jun '43	318	47.2	19.5	-	33.3
Marshall Islands	31 Jan '44- 5 Feb '44	185	51.9	48.1	-	-

## DISPOSITION OF WOUNDED ADMISSIONS

ARMIES						
First	6 Jun '44-23 Mar '45	151,547	7.7	87.4	3.3	1.6
Third	1 Aug '44-23 Mar '45	92,420	17.1	68.3	3.2	11.4
Seventh	18 Nov '44-16 Mar '45	30,325	15.6	72.7	2.2	9.5
Fifth	29 Jul '44-30 Mar '45	20,484	24.7	71.8	2.3	1.2
CORPS						
II, Tunisia	1 Jan '43-15 May '43	6,808	10.1	87.6	2.0	0.3
II, Sicily	10 Jul '43-17 Aug '43	3,909	6.5	85.4	3.8	4.2
II, Italy	17 Nov '43-31 Dec '44	31,758	3.9	94.7	1.1	0.3
DIVISION						
1st Arm. 1/	1 Jan '44-31 Dec '44	4,405	8.4	75.5	0.8	15.3
34th Inf. 1/	9 Feb '43-11 May '43	1,419	5.9	94.1	-	-
27th Inf. 2/	15 Jun '44-22 Jul '44	2,948	Not available			
AMPHIBIOUS OPERATIONS						
Attu Island	8 May '43- 4 Jun '43	1,148	12.2	59.8	1.0	27.1
Marshall Islands	31 Jan '44- 5 Feb '44	1,016	28.8	69.7	1.5	-

1/ Mediterranean Theater.

2/ Saipan.

3/ The dash is used to denote none, the zero to denote less than 0.5 percent.

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## HOSPITALIZATION

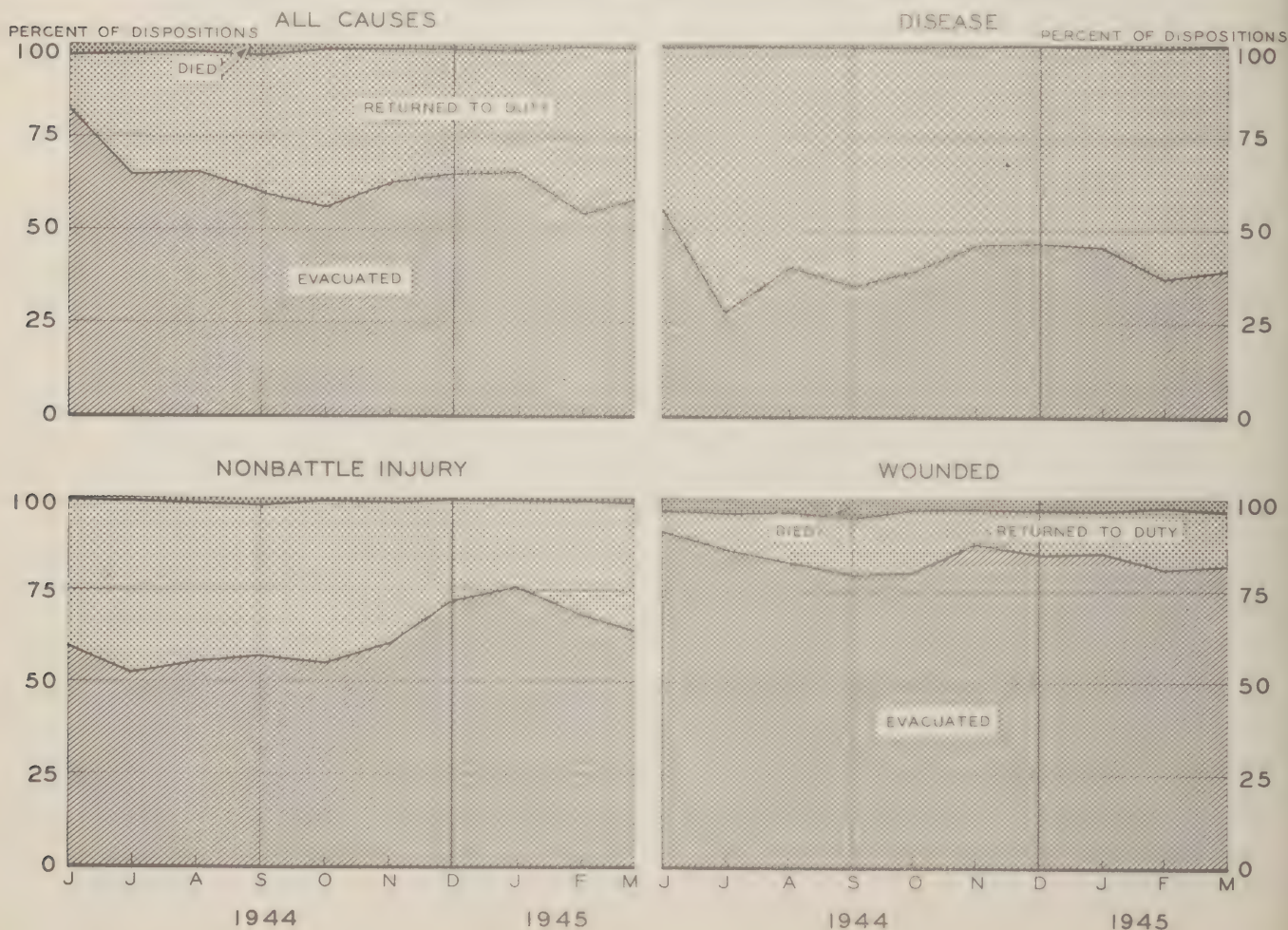
### DISPOSITION OF ADMISSIONS IN FORWARD AREAS (Continued)

PERCENTAGE OF ADMISSIONS RETURNED TO DUTY IN THE FIFTH ARMY  
WITHOUT EVACUATION TO THE REAR

Period	Total	Nonbattle Injury	Wounded	Disease
1 Jan 1944 - 28 Jul 1944	47.1	46.5	47.3	52.0
29 Jul 1944 - 29 Dec 1944	52.1	45.0	51.1	61.3
30 Dec 1944 - 30 Mar 1945	59.2	54.3	52.1	64.0

The preservation of effective manpower in forward areas is accomplished only by a proper balancing of the forces reducing the size of the effective body of troops available with the forces acting to maintain their size. The experience of the war to date has shown that the proportion of admissions who can be returned to duty in an army area is subject to wide variation. Far more than the tactical situation is involved in the observed variation, although for any one army this may be the determining factor. The pressure of a sudden increase in tactical activity, or its converse, exerts a marked effect on the evacuation of patients from forward areas. The panels below detail, for the aggregate experience of the First, Third, and Seventh Armies in the European Theater, the percentage distribution of dispositions for each month between June 1944 and March 1945. The high level of evacuations for June and July 1944 is attributable to the scarcity of hospital units on the European Continent at that time, and the prompt evacuation to the U. K. of all but the shortest duration cases. During November, December, and January evacuation was increased in order to clear forward medical facilities for the inflow of casualties resulting from the attacks and counter-attacks of those months. The increased evacuation of nonbattle injury patients at that time resulted not only from the increase in tactical activity but also from the epidemic of trench foot.

### PERCENTAGE DISTRIBUTIONS OF DISPOSITIONS OF ADMISSIONS, BY MONTHS FIRST, THIRD, AND SEVENTH ARMIES IN THE EUROPEAN THEATER





# HOSPITALIZATION

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## DISPOSITION OF ADMISSIONS IN FORWARD AREAS (Continued)

Except for the tactical situation and the capacity of the hospitals available, perhaps the most important determinant of the ability of an army or similar force to conserve its effective strength is its hospitalization policy. The experience of the war has shown that the best results are obtained from a degree of segregation of patients and specialization of treatment which requires that the present basic units be used with force and imagination, and supplemented at times with other means. The way in which hospitals are deployed in relation to troops in the line, to the means of transportation and evacuation, and the like also determines the efficiency with which they can be used. A high price in necessary replacements can be paid for maintaining too great a reserve of evacuation hospitals primarily because of the priority which must be assigned to the surgical need under fluid combat conditions. Lightly wounded and sick patients who could be returned to duty in a reasonable time are often evacuated to make way for high priority surgical and medical cases. Medical patients may be evacuated to the rear who could be returned to duty in the forward area quickly if internists and psychiatrists of sufficient stature were readily available for diagnosis and treatment. Unless the route of evacuation ramifies in the army area, taking patients out of the line of direct evacuation at various points, it can become a main highway to the base areas for an unduly large proportion of men. The loss of trained men is a serious matter for tactical commanders, having an importance far beyond the numbers of men involved. At the present time the chief branch on the route of evacuation in the army area which is provided by a type unit is the army convalescent hospital, but the experience of all armies has shown that an N-P hospital or center of some kind must be established in the forward area. Typically, patients suffering from combat exhaustion, venereal diseases, upper respiratory infections, mumps, measles, mild trench foot, and minor injuries, as well as the less seriously wounded, can be returned to duty with their own units without evacuation from the army area. The Fifth Army, which has gone far in the direction of specialized hospital care, has demonstrated that real dividends flow from an early segregation of at least certain types of medical patients from surgical patients. The importance of the contribution made by returning to duty medical as distinguished from surgical patients may be illustrated by the fact that 70 to 80 percent of all patients returned to duty by the medical installations of the four armies in question were patients with various diseases. Any feasible measures for increasing further the rate at which disease patients are returned to duty directly instead of evacuated to the rear, are thus of paramount importance. The flow of medical patients is much more predictable than the flow of wounded, and the reserve needed for their care under extreme conditions is much smaller than that for surgical patients. Within certain limits imposed by the necessity for resting units and particularly for being prepared for tactical emergencies, it is in the interest of efficient utilization of available capacity to minimize the amount held in reserve.

An army must preserve its striking power by holding to a bare minimum its impedimenta and service units. There are sound military reasons for not overburdening an army with a large hospital capacity. For this reason it is especially important to consider the ways in which the limited amount of hospitalization assigned to an army can be most effectively utilized. The experience in Europe suggests that much might be gained from a greater degree of specialization of hospital care than the present T/O units were planned for. Although it is perhaps too late to revise the hospital T/O and E's to render hospital units ideally flexible in the light of the lessons learned in the European war zone, the probable importance of disease in the Asiatic campaigns makes it especially desirable that thought be given to the modification of units in the field in accordance with the special needs which arise. This will require excellent cooperation between theater and tactical commands in order that the rigidities of T/O and E's not be allowed to prevent the indicated degree of specialization within the army area. If the lessons of the European and Mediterranean Theaters are transferable to the Pacific, it should be possible for the armies there to plan on returning to duty directly from army medical installations perhaps 60 percent of disease patients, 35 percent of the injured, and 17 percent of the wounded. Realization of these figures in turn should reduce the burden on transportation facilities and on medical installations in the Communications Zone.

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## HOSPITALIZATION

## HOSPITALIZATION OVERSEAS

Fixed bed occupancy in the European Theater moved from 5.8 percent of strength on 1 March to 5.3 at the end of the month, and it declined to 4.9 percent of strength at the

## FIXED BEDS AVAILABLE AND OCCUPIED

Number of Beds, 31 March 1945

Theater	W. D. Authorization	T/O Present b/		T/O b/ Under Orders	Total Occupied c/
		Number	Percent of Authorization		
ALL THEATERS	357,512	332,825	93.1	13,000	235,004
American a/	4,343	5,025	115.7	-	2,696
European					
Total	212,123	198,350	93.5	2,000	161,952
Continent	-	93,800	-	-	79,252
United Kingdom	-	104,550	-	-	82,700
Mediterranean	33,085	29,000	87.7	-	16,019
Pacific Ocean Areas	29,357	30,550	104.1	5,000	10,304
Southwest Pacific					
Total	55,563	50,300	90.5	6,000	34,096
Australia	-	1,800	-	-	845
New Guinea and Islands	-	30,300	-	-	16,882
Philippines	-	18,200d/	-	6,000	16,369
Asiatic Theaters					
Total	19,817	16,800	84.8	-	8,689
China	2,427	2,100	86.5	-	1,171
India-Burma	17,390	14,700	84.5	-	7,518
Africa-Middle East e/	3,224	2,800	86.8	-	1,248

## Beds as Percent of Strength

Theater	Strength (Thousands) f/	W. D. Author- ization	T/O Present b/		Beds Occupied c/	
			Total	Usable g/	Percent of Strength	Percent of T/O Present
ALL THEATERS	5,344	6.7	6.2	5.0	4.4	70.6
American a/	145	3.0	3.5	2.8	1.9	53.7
European						
Total	3,031	7.0	6.5	5.2	5.3	81.6
Continent	2,544	-	-	-	-	84.5
United Kingdom	487	-	-	-	-	79.1
Mediterranean	501	6.6	5.8	4.6	3.2	55.2
Pacific Ocean Areas	489	6.0	6.2	5.0	2.1	33.7
Southwest Pacific						
Total	794	7.0	6.3	5.1	4.3	67.8
Australia	20	-	-	-	-	46.9
New Guinea and Islands	250	-	-	-	-	55.7
Philippines	524	-	-	-	-	89.9
Asiatic Theaters						
Total	330	6.0	5.1	4.1	2.6	51.7
China	40	6.0	5.2	4.2	2.9	55.8
India-Burma	290	6.0	5.1	4.1	2.6	51.1
Africa-Middle East e/	54	6.0	5.2	4.2	2.3	44.6

a/ Includes Alaskan Defense Command and excludes the Northwest Service Command and Eastern and Central Canada.

b/ T.L.O.S. dated 1 April 1945.

c/ Reported by theaters telegraphically for 30 March 1945.

d/ Includes 1,200 beds in 3 field hospitals, assigned to POA, but on Leyte 1 April 1945.

e/ Includes Persian Gulf Command.

f/ Geographic strength by theater. India-Burma, Asiatic Theaters, and All Theaters strengths include 77,000 Chinese.

g/ Eighty percent of total T/O Present.

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## HOSPITALIZATION

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## HOSPITALIZATION OVERSEAS (Continued)

end of April and to about 4.4 percent on 4 May according to preliminary data.

The preceding tables summarize the bed situation in the overseas theaters on 30 March 1945, the latest date for which reasonably complete information is available. The counts of beds present and under orders are based upon the 1 April 1945 Troop List for Operations and Supply. The number of beds reported as present in the Troop List may differ slightly from theater counts for the same date because of lags in reporting the arrival of units in the theaters. The Troop List gives a total of 332,825 fixed bed units present overseas on 1 April in comparison with a figure of 327,655 reported by the theaters on 30 March. The strengths shown include all personnel within the geographic limits of the various commands. In addition, the strength of the Asiatic theaters includes 77,000 Chinese troops reported in India-Burma. Although some Chinese troops are hospitalized by American units in the China Theater, the strength served is not known, and hence the ratios for this theater may be overstated. For the end of March the following table gives the proportion of patients in hospital in the Asiatic theaters who were Chinese. The reported number of fixed beds occupied in the Pacific Ocean Areas is believed to be too low, possibly excluding Marine Corps

PATIENTS IN HOSPITAL, ASIATIC THEATERS, 30 March 1945

Theater	Number of Beds Occupied By American and Chinese		Percent Occupied By Chinese	
	Fixed	Nonfixed	Fixed	Nonfixed
Total	8,689	2,490	22.6	76.3
China	1,171	705	43.3	99.1
India-Burma	7,518	1,785	19.4	67.2

casualties from Iwo Jima hospitalized in Army units in the Marianas. Until confirmation is received from the theater a level of about 15,000 is thought to be more reasonable than the 10,304 reported.

At the end of March 198,350 T/O fixed bed units were present in the European Theater, 95.3 percent of which were operating. However, after ten months of combat in Europe only 47.3 percent of the fixed beds were on the Continent, the remainder being in the United Kingdom. The location of a large number of beds in the United Kingdom makes it necessary to evacuate patients longer distances from the forward areas and thus slows their return to duty within the army area (see pages 22 to 27). The European Theater recently reported that only 51.7 percent of its operating units were expected to be on the Continent by 1 May. On 27 April 50.2 percent of its operating fixed bed capacity was reported to be there. At the end of March, 48 percent of all occupied fixed beds in the theater were filled by U. S. Army disease or nonbattle injury patients, 39 percent were U. S. Army wounded, 11 percent were prisoners of war, and the remaining two percent were allies and civilian patients.

The care of prisoner-of-war patients has proved an increasing burden to the medical facilities in the European Theater. On 8 April there were 25,730 PW patients under the care of the United States Army, of whom 65 percent were being cared for in U. S. Army hospitals and the remainder in special PW hospitals staffed by prisoner-of-war personnel. The minimum PW personnel requirements for medical service for prisoners have been set at 28 medical officers and 648 enlisted men per 1,000 hospital beds and those for dispensary service at 6 officers and 6 enlisted men per 1,000 men needing such service. On 31 March 597 PW medical officers and 12,913 PW enlisted men were available for hospital service. On 1 April 1945 seven provisional PW hospitals were in operation and by 15 April 1945 provision had been made for staffing a total of ten PW hospitals, of which two are to be located in the United Kingdom. As far as possible enemy protected personnel in the army area has been utilized to operate over-run German military hospitals, but a significant load has fallen upon U. S. Army personnel (see page 43).

During March the number of mobile units available overseas increased by only 800 beds in the European Theater to reach 85,100 beds at the end of the month. As the result of action on Mindanao and in northern Luzon the occupancy of mobile facilities in the Southwest Pacific increased from .4 percent of strength at the beginning of the month to .9 at the end.

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# HOSPITALIZATION

## HOSPITALIZATION OVERSEAS (Continued)

### NONFIXED BEDS AVAILABLE AND OCCUPIED

31 March 1945

Theater	Number of Beds			Percent of Strength		Occupied as Percent of T/O Present
	T/O Present b/	Under Orders b/	Total Occupied c/	T/O Present	Total Occupied	
ALL THEATERS a/	85,100	1,625	28,439 d/	1.6	0.5 d/	33.4 d/
European						
Total	56,600	1,600	16,000 d/	1.9	0.5 d/	28.3 d/
Continent	50,200	-	16,000 d/	-	-	31.9 d/
United Kingdom	6,400	-	-	-	-	-
Mediterranean	8,800	-	2,988	1.8	0.6	34.0
Pacific Ocean Areas	3,900	-	149	0.8	0.0	3.8
Southwest Pacific						
Total	10,100 e/	-	6,812	1.3	0.9	67.4
Australia	25	-	-	-	-	-
New Guinea and Islands	975	-	85	-	-	8.7
Philippines	9,100 e/	-	6,727	-	-	73.9
Asiatic Theaters						
Total	5,700	25	2,490	1.7	0.8	43.7
China	300	-	705	0.7	1.7	235.0
India-Burma	5,400	25	1,785	1.9	0.6	33.1

a/ Includes American and Africa-Middle Eastern Theaters which have no mobile beds.

b/ T.L.O.S. dated 1 April 1945.

c/ Reported by theaters telegraphically for 30 March 1945.

d/ Estimated.

e/ Includes 150 beds in 6 portable surgical hospitals assigned to POA but on Leyte 1 April 1945.

The need for hospitalizing prisoners, members of other U. S. armed forces, civilians, partisans, and Allied military personnel, constitutes a drain on the available hospital beds in many overseas theaters. The table below details the latest available percentage distributions of bed occupancy by type of patient in the various overseas theaters.

### FIXED AND MOBILE BEDS OCCUPIED, OVERSEAS THEATERS By Type of Patient

Theater	Date	Total Beds Occupied	Percent of Total Beds Occupied				
			U. S.		Allies and Neutrals	PW	Civilians
			Army	Other			
ALL THEATERS	-	270,126	90.2	0.8	2.8	5.4	0.8
North American	30 Mar '45	1,118	77.2	2.6	2.2	-	18.0
Latin American	30 Mar '45	1,785	96.3	0.6	0.6	-	2.5
European	9 Feb '45	192,662	91.3	0.6	0.7	7.1	0.2
Mediterranean	21 Apr '45	20,576	89.5	0.2	7.9	1.8	0.6
Africa-Middle East	a/	905	91.1	1.2	0.7	-	7.1
Pacific Ocean Areas	23 Feb '45	10,705	92.2	3.6	0.0	1.6	2.6
Southwest Pacific	26 Jan '45	30,252	94.0	1.5	0.6	0.7	3.1
Asiatic Theaters	23 Feb '45	12,123	63.4	0.2	35.1	0.2	0.9

a/ As of 23 February 1945 for Middle East and 30 March 1945 for Persian Gulf Command.



# HOSPITALIZATION

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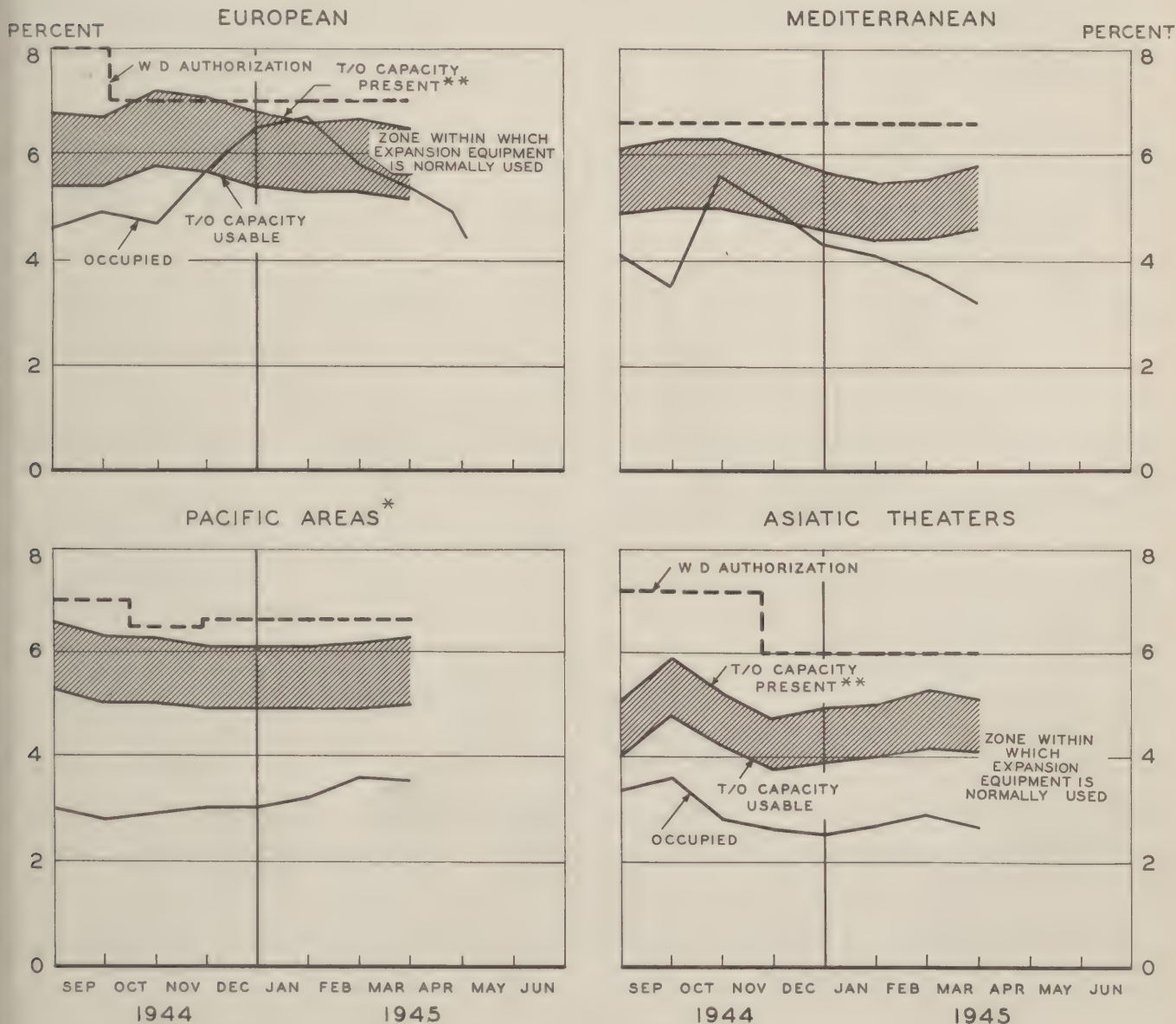
## HOSPITALIZATION OVERSEAS (Continued)

The panels below give the recent changes in the availability and occupancy of fixed beds in the more active theaters since the beginning of September 1944. The shaded band on each panel gives the range of occupancy within which the use of expansion equipment is usually necessary, so that an occupancy line in this area is evidence of pressure upon the theater supply of fixed beds. The pressure may be even greater than indicated, for in some instances a considerable number of units may not be operating, and thus expansion facilities must often be used earlier than the charts show. In these instances, however, personnel of non-operating units should be available for attachment to operating units expanded beyond T/O capacity. The experience of the Southwest Pacific Area during the past six to eight months has been such that about one-third of its fixed bed capacity has been inoperative because units were either in construction, staging, or moving from one area to another.

In none of the theaters except the European is the fixed bed situation characterized by crowding, and even there the percent of strength in beds has declined until, at the end of March, it was only 2 percent above the usable fixed beds available.

### FIXED HOSPITALIZATION OVERSEAS THEATERS

BEDS AS PERCENT OF STRENGTH



\* Southwest Pacific and Pacific Ocean Areas.

\*\* Exceeds T/O capacity of units set up by capacity of units staging, etc.

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## HOSPITALIZATION

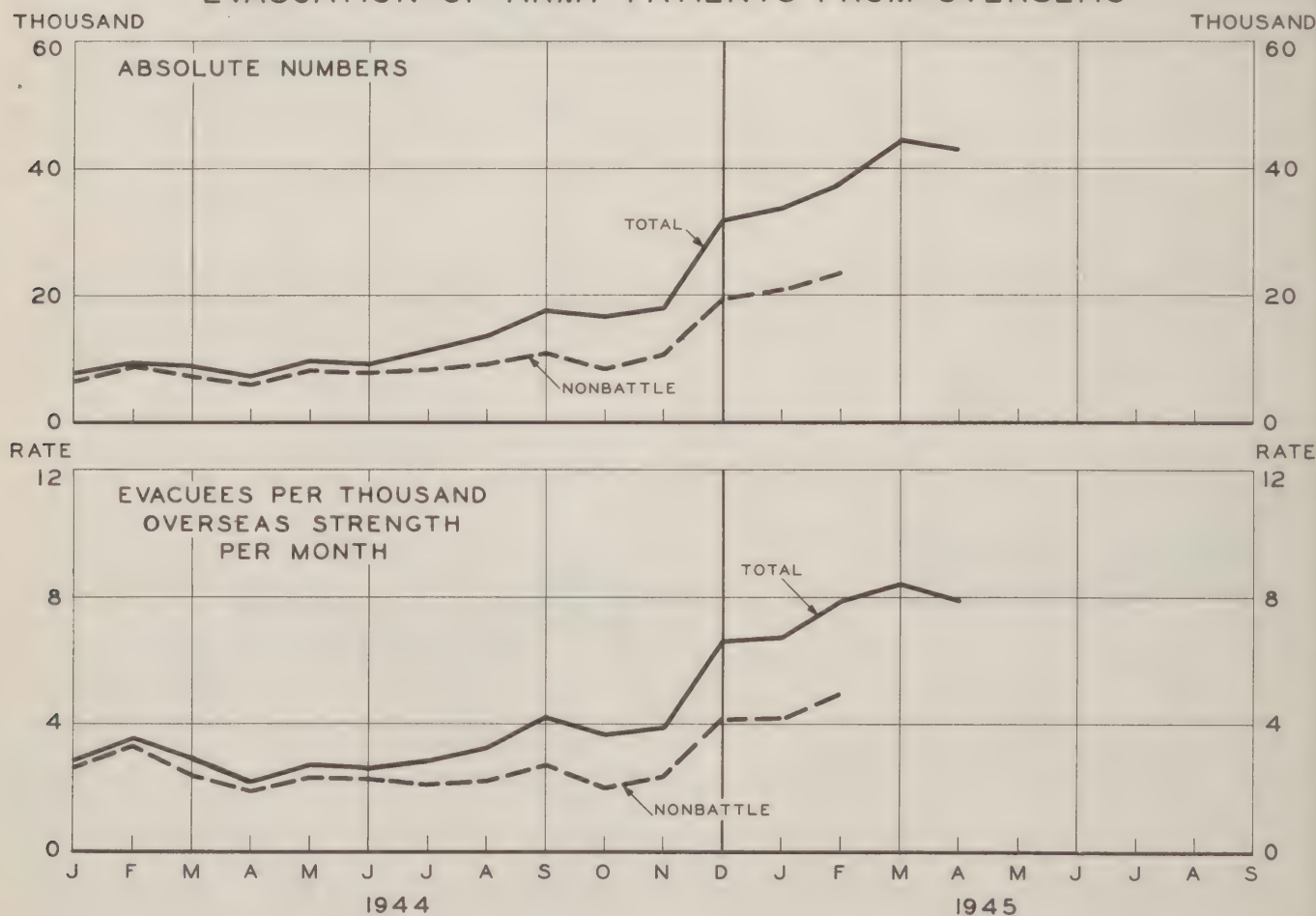
## TREND OF EVACUATION FROM OVERSEAS

The revised March count of Army patients debarked in the U. S. is 44,700, slightly higher than the provisional count of 43,000 shown in HEALTH for March. Both air and water totals for the month have been revised upward, the air figure being 8,500. This unprecedented air lift was probably exceeded by a slight margin in April, for preliminary reports give 9,000 Army patients evacuated by air. The water lift, however, apparently fell off slightly, for the preliminary April count of 34,000 Army patients is 2,500 below the March tally. About 700 non-Army patients, mostly enemy prisoners of war, were also returned by water. Although only 88 RAMP (Recovered Allied Military Personnel) patients were evacuated by water during April, about 5,000 are expected to be available for shipment to the U. S. during May.

On 1 May the evacuation policy of the European and Mediterranean Theaters was reduced to 60 days in an effort to bring Army patients home as quickly as possible. A moderate increase in total lift is expected during May and June, followed by some decline in July and a sharp decline in August as the backlog of patients in the European Theater disappears. At the same time there is no reason to expect that the Pacific will necessarily lose any substantial amount of lift because of redeployment.

The charts at the bottom of the page give the trend of evacuation in both absolute and rate form. The dashed line for nonbattle patients has been extended through February. The high rate of evacuation for nonbattle causes, consistently around 60 percent in recent months, has been sustained in considerable part by the evacuation of cold injury patients from the European Theater. About 12,300 had been received by the end of March, mostly during February and March.

## EVACUATION OF ARMY PATIENTS FROM OVERSEAS





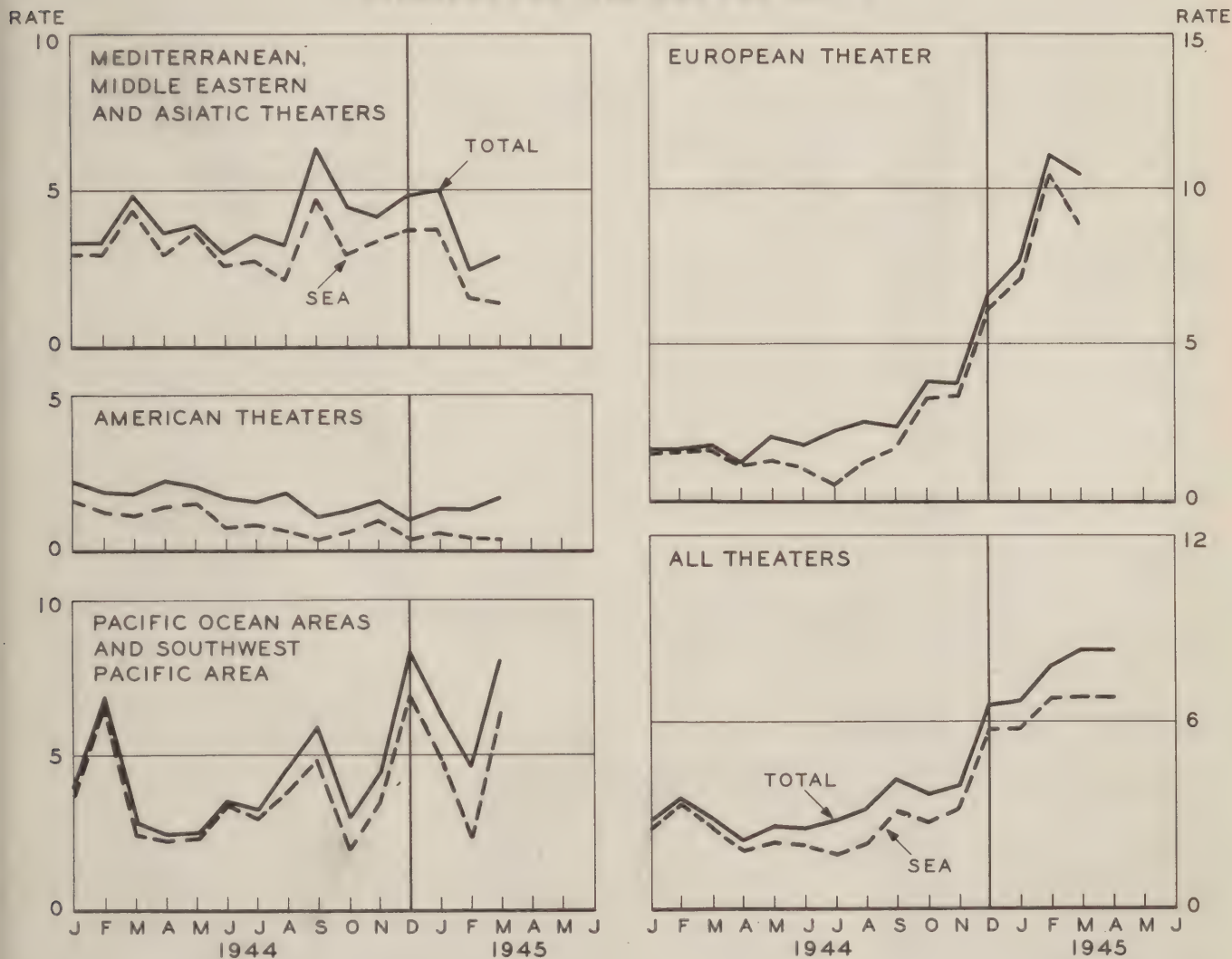
# HOSPITALIZATION

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## EVACUATION FROM OVERSEAS (Continued)

The increase in debarkations for March reflects primarily the greater lift from the Southwest Pacific, 7,400 Army patients having been returned by water alone. Water evacuation from the European Theater decreased by over 1,000, but air evacuation increased from an estimated 1,700 in February to 4,800 in March. On a rate basis, however, taking into account the lengths of the months, the total rate for the European Theater declined from 11 in February to 10 in March. The theater totals are not yet available for April because of a delay in the reporting of evacuees by air. In comparison with March the European Theater and the Southwest Pacific Area each debarked about 2,000 less by water during April, while the Mediterranean debarked about 1,000 more patients. April embarkations by water for the European Theater were only 24,000, or slightly less than the April figures for debarkations, so that the first half of May must see a considerable change in the volume of evacuation if the May total is to differ appreciably from that for April. An incomplete count of embarkations for the Southwest Pacific puts the April total at 7,300 or more, forecasting a real increase in May debarkations by water from this area.

### ARMY PATIENTS DEBARKED IN THE U.S. FROM OVERSEAS THEATERS EVACUEES PER 1000 MEN PER MONTH





HOSPITALIZATION

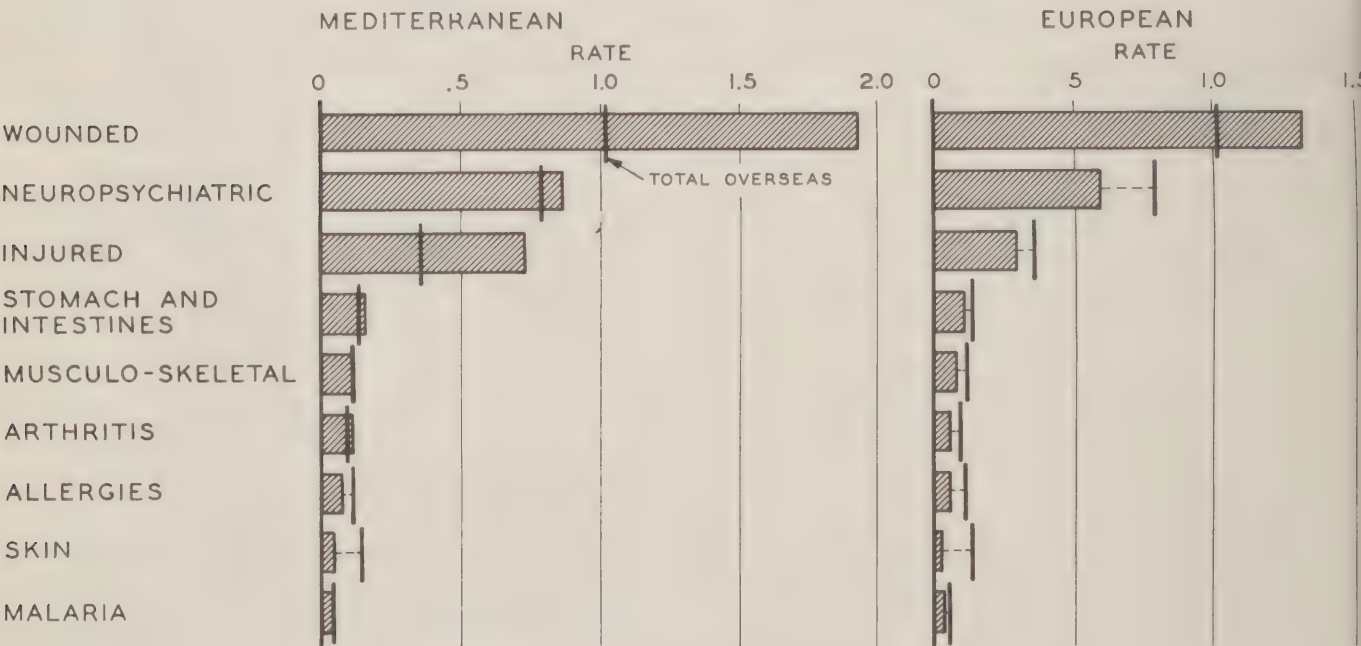
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CAUSES OF EVACUATION

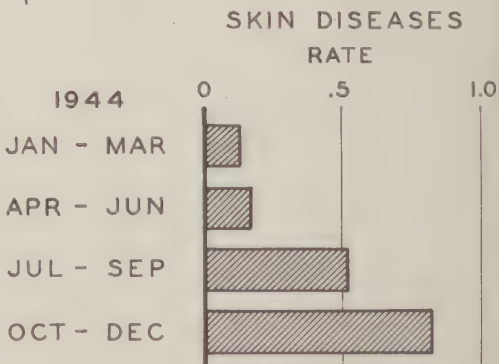
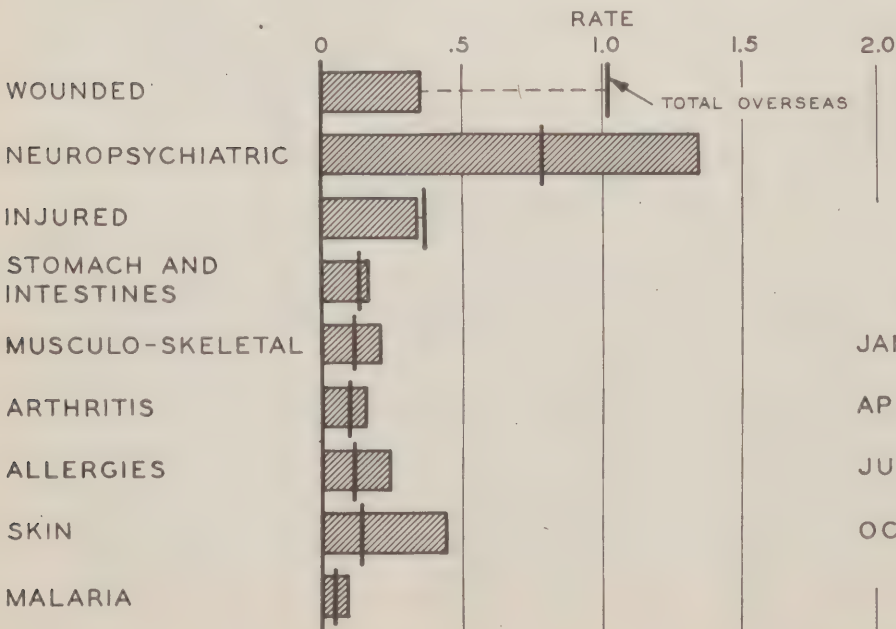
During 1944 approximately 160,000 Army patients were debarked in the Z/I from overseas theaters. Thirty-eight percent originated in the European Theater, 33 percent in the Pacific areas, and 25 percent in the Mediterranean Theater. During the first half of the year the Pacific contributed about 40 percent of all evacuees, but during the fourth quarter more than 50 percent came from the European Theater, and in February, 80 percent.

The table on the next page summarizes the experience of the year with respect to major cause-groups and theaters of origin. Disease patients represented about 60 percent of all evacuees; only in the European and Mediterranean Theaters did wounded and injured evacuees outnumber those for disease, including neuropsychiatric disorders. In January 1945 the disease patients represented 40 percent of all Army patients debarked, and in February the percentage was slightly lower. Atypical evacuation rates will be noted for injured patients from the Mediterranean Theater and for both neuropsychiatric and other disease patients from the Pacific.

EVACUEES PER THOUSAND MEN PER MONTH, BY DIAGNOSIS  
OVERSEAS THEATERS 1944



SOUTHWEST PACIFIC AND PACIFIC OCEAN AREAS





HOSPITALIZATION

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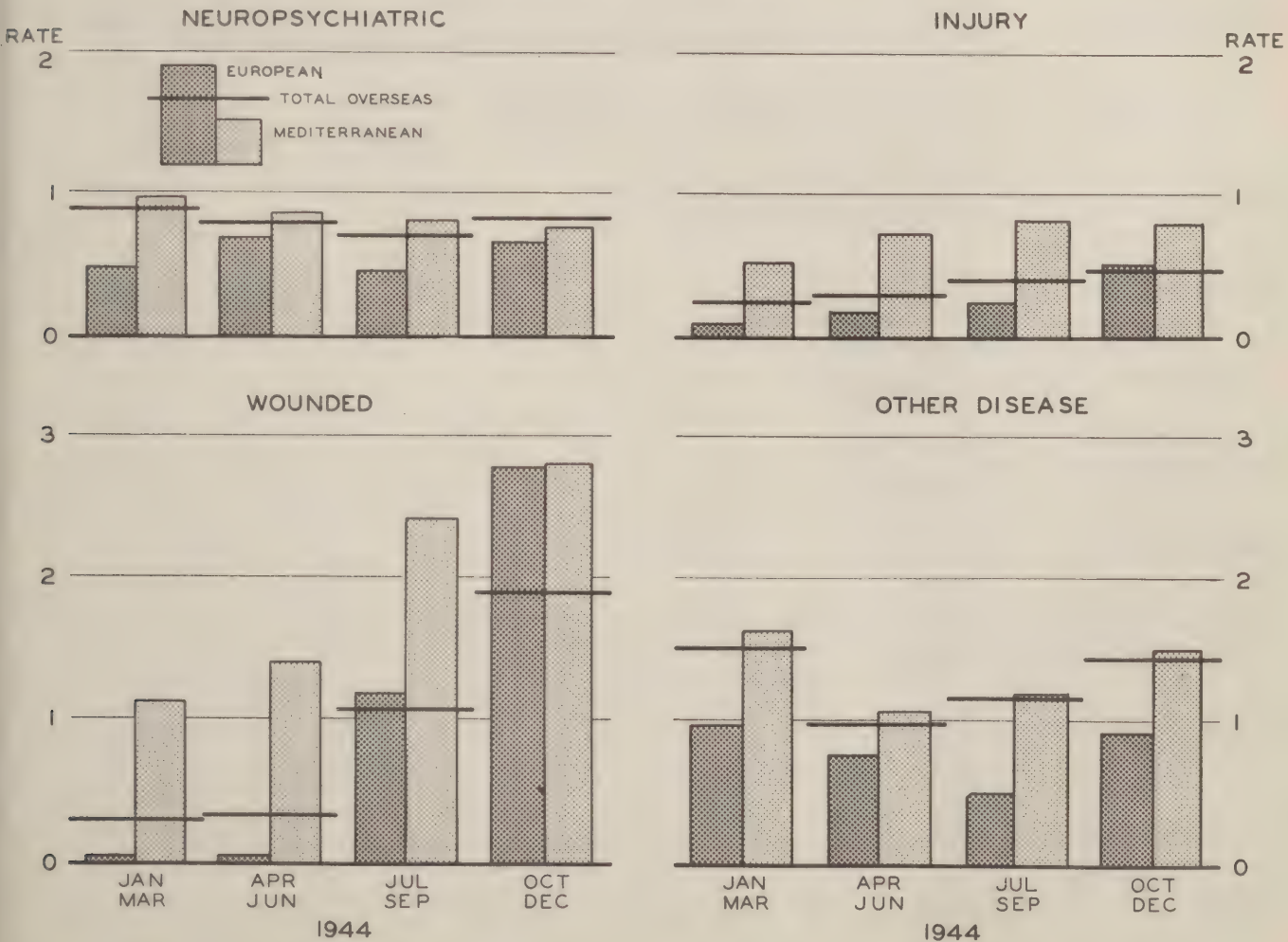
CAUSES OF EVACUATION (Continued)

EVACUEES PER 1,000 MEN PER MONTH BY MAJOR DIAGNOSIS, 1944

Command	Wounded	Injury	N-P	Other Disease	Total
TOTAL OVERSEAS	1.0	0.4	0.8	1.3	3.5
European	1.3	0.3	0.6	0.8	3.0
Mediterranean	1.9	0.7	0.9	1.3	4.8
Southwest Pacific and Pacific Ocean Areas	0.4	0.3	1.4	2.3	4.4
North American	0.0	0.2	0.4	1.0	1.6
Latin American	0.0	0.1	0.6	1.0	1.7
Middle Eastern	0.0	0.2	0.4	0.7	1.3
Asiatic	0.1	0.2	0.3	1.0	1.6

The charts on the foregoing page compare the major theaters during 1944 from the standpoint of cause of evacuation, the vertical line over each bar representing the average rate for all theaters. Over 80 percent of the total rate in each case is covered by the categories shown separately. The evacuation rate for wounded is by far the greatest in the case of the Mediterranean Theater, which also had a high rate of evacuation for neuropsychiatric conditions. In addition to an exceptionally high evacuation rate for neuropsychiatric disorders the Southwest Pacific evacuated a high proportion of patients with skin diseases. The inset on the panel for the Southwest Pacific shows how greatly the number of skin disease patients evacuated increased during the year.

EVACUEES PER THOUSAND MEN PER MONTH BY MAJOR DIAGNOSES  
OVERSEAS THEATERS 1944





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# HOSPITALIZATION

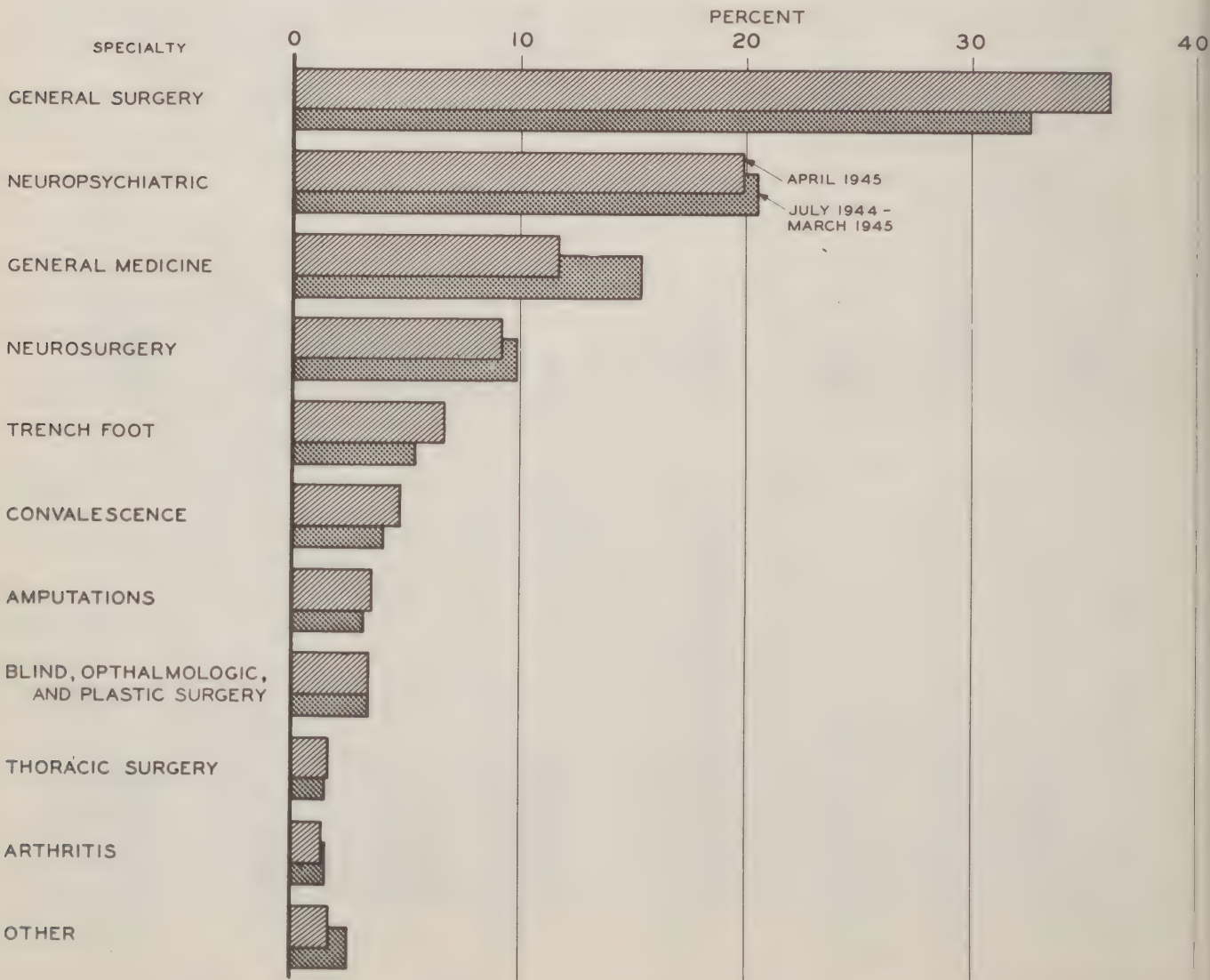
## CAUSES OF EVACUATION (Continued)

The general trend of evacuation by cause may be seen from the chart below which gives quarterly evacuation rates for the European and Mediterranean Theaters against the background of the rates for all overseas theaters. The changes in the rates for wounded are of the greatest significance. Apart from neuropsychiatric conditions, disease has caused proportionately less evacuation in the two European theaters in recent months, the total overseas rate having been upheld by the rate for the Pacific areas. Evacuation for injury increased during the year, but the most dramatic change occurred in the European Theater in the last quarter because of cold injury. In every quarter, however, the Mediterranean rate for injury exceeded the European.

In keeping with the tremendous growth in Z/I hospital facilities for overseas patients, a system of specialized hospital care was evolved during the first half of 1944. In connection with the allocation of patients needing specialized treatment to the appropriate centers, a record is made of the specialty of each debarked patient. The chart below summarizes the reported experience from July 1944 through April 1945, with April being shown separately. It is of interest that cold injury accounts for as much as five percent of the total through March 1945. In March 11 percent and in April 7 percent of all evacuees were cold injury patients.

With the ending of hostilities in Europe it may be expected that major shifts will occur in causes of evacuation, medical and neuropsychiatric patients constituting a greater proportion and surgical patients making up less of the load until full-scale hostilities are under way in the Pacific.

EVACUEES RECEIVED IN UNITED STATES BY SPECIALTY, JULY 1944 - APRIL 1945  
AS PERCENT OF ALL EVACUEES





# HOSPITALIZATION

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## HOSPITALIZATION IN THE ZONE OF INTERIOR

### Patient Trend

U. S. Army patient evacuees processed through debarkation hospitals into the Zone of the Interior during April totaled 42,041, a decrease of approximately 3,100 from the comparable March figure. However, this April figure is higher than any previous month's evacuations with the exception of March. April marks the second month that overseas patient inflow into the general hospital system has exceeded 40,000 per month. Present indications are that this rate will continue for several months before any noticeable dropping-off occurs.

U. S. ARMY PATIENT EVACUEES PROCESSED THROUGH DEBARKATION HOSPITALS,  
TOTAL PATIENTS REMAINING AND BATTLE CASUALTIES REMAINING IN  
THE GENERAL AND CONVALESCENT HOSPITALS  
July 1944-April 1945

Month	Overseas Evacuees Processed During Month*	Patients Remaining End of the Month**	
		All Patients	Battle Casualties
July 1944	10,566	61,954	8,926
August	13,970	69,367	12,061
September	16,630	79,315	17,138
October	17,437	87,282	24,158
November	17,852	95,068	28,765
December	31,350	108,640	37,335
January 1945	33,456	132,842	47,649
February	37,727	150,624	55,535
March	45,131	181,700#	70,555#
April	42,041	199,702#	81,809#

\* These data cover U. S. Army patients processed through debarkation hospitals during each month and as such differ slightly from the number of evacuees reported by the Transportation Corps.

\*\* Data as of the last Friday of each month.

# Data for April exclude patients in triage in debarkation hospitals.

At the end of April patient population of the general hospital system reached a new high of 199,702, a net increase of 18,002 during the four-week period from the end of March to the end of April. This net increase is substantially smaller than the corresponding increase for March. This is accounted for by the shorter report period in April (four weeks compared with five weeks in March), plus the smaller number of overseas patients received during the month. Final dispositions from the hospitals during April were only slightly different from those experienced in March. Final disposition data for general and convalescent hospitals by weeks for the past two months are shown by the following table:

### FINAL DISPOSITIONS, GENERAL AND CONVALESCENT HOSPITALS

Week Ending	Total	Duty	CDD	Other
2 March	7,748	4,258	2,770	720
9 March	7,796	4,358	2,795	643
16 March	8,117	4,484	2,944	689
23 March	8,164	4,414	3,112	638
30 March	8,419	4,370	3,414	635
6 April	7,700	4,046	3,031	623
13 April	8,000	4,344	2,950	706
20 April	8,002	4,212	3,140	650
27 April	8,685	4,754	3,245	686

The consistency with which the disposition figure has held to about 8,000 a week average despite mounting patient loads should be noted. Present estimates of the ability of

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# HOSPITALIZATION

## HOSPITALIZATION IN THE ZONE OF INTERIOR (Continued)

the general and convalescent hospitals to handle the anticipated peak patient load has been predicated on dispositions increasing in relation to patient load. The necessity of accelerating present disposition rates consistent, of course, with the maintenance of established medical standards, has been emphasized to hospital commanders.

### General Hospitals Proper

Authorized patient capacity of the general hospitals increased only slightly during April. Similarly, effective beds available to the Medical Regulating Officer at the end of April showed a small increase. Some 2,800 emergency beds were still being held for debarkation back-up purposes to support the heavy patient debarkations anticipated at New York and San Francisco. The availability of approximately 15,000 additional beds under the general hospital expansion program is still pending completion of construction, most of which will be available by June.

### PATIENTS REMAINING IN GENERAL HOSPITALS PROPER End of April 1945

Command	Number of Hospitals	Authorized Patient Capacity*	Effective Beds**	Patients Remaining		Beds Occupied
				Number	Percent of Effective Beds	
Total	65	153,595	138,103	153,481	111.1	110,477
Service Commands						
First	3	9,000	7,200	7,725	107.3	5,827
Second	5	17,732	13,232	13,657	103.2	10,961
Third	5	10,313	9,831	10,647	108.3	7,328
Fourth	12	29,269	26,682	32,619	122.2	23,005
Fifth	8	14,216	14,124	17,641	124.9	12,017
Sixth	4	8,230	8,205	8,918	108.7	6,628
Seventh	5	13,434	13,434	13,494	100.4	9,888
Eighth	10	21,396	21,396	24,297	113.6	16,309
Ninth	12	27,005	20,999	21,408	101.9	16,061
The Surgeon General (Walter Reed)	1	3,000	3,000	3,075	102.5	2,453

\* Sub-authorized by Office of Surgeon General on basis of total authorization of 169,500 from G-4.

\*\* Authorized beds less 11,565 debarkation beds; 2,800 beds held for debarkation back-up purposes; and 1,127 beds temporarily not available for use by Medical Regulating Officer.

Patients remaining in general hospitals exceeded available bed capacity in all service commands with the Fourth, Fifth and Eighth Service Commands having the highest ratio of patients. Patients on furlough also increased during April, totaling 43,000 at the end of the month, or 28 percent of the total patient load. All but the Second Service Command have 25 percent or more patients on furlough with three service commands (Third, Fifth and Eighth) exceeding 30 percent on furlough. To gauge the delayed treatment load contained in these large furlough figures, The Surgeon General has undertaken a special furlough study.

### Convalescent Hospitals

Distinct improvement in the operating condition of the convalescent hospitals was apparent during April. Operating capacities as used by the Medical Regulating Officer increased from 40,750 at the end of March to 46,851 at the end of April. A similar increase occurred in patients remaining.



# HOSPITALIZATION

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## HOSPITALIZATION IN THE ZONE OF INTERIOR (Continued)

### OPERATING CAPACITIES AND PATIENTS REMAINING IN CONVALESCENT HOSPITALS March and April 1945

Hospital	Operating Capacity		Patients Remaining		End of April		Beds Occupied End of April
	End of April	End of March	End of April	End of March	Percent Pa- tients Re- maining of Operating Capacity	Percent Beds Oc- cupied of Operating Capacity	
Total	46,851	40,750	46,221	40,169	98.7	64.5	30,227
Edwards	6,000	5,200	5,944	4,197	99.1	64.1	3,847
Upton	3,500	3,500	2,610	2,690	74.6	52.0	1,819
Pickett	5,000	4,000	5,122	4,027	102.4	26.6	1,329
Story	1,800	1,800	1,692	2,041	94.0	75.7	1,362
Butner	5,500	4,500	6,373	4,531	115.9	65.5	3,601
Welch	3,500	3,500	2,786	2,864	79.6	63.4	2,218
Wakeman	6,000	5,500	4,578	5,118	76.3	51.0	3,057
Percy Jones	6,000	5,500	5,373	4,751	89.6	67.3	4,038
Carson	4,500	3,700	7,058	5,810	156.8	128.2	5,767
Brooke	4,000	2,000	3,231	2,699	80.8	67.8	2,712
Mitchell	851	1,350	1,349	1,331	158.5	43.7	372
Old Farms	200	200	105	110	52.5	52.5	105

The conversion of barracks and adjunct facilities made rapid progress during April which contributed to the build-up of patients actually in the hospital. At the end of April slightly more than a third of the total patients were on furlough compared to 45 percent on furlough in March.

#### Station and Regional Hospitals

Reduction in authorized beds and number of patients remaining for regional and station hospitals continued during April. However, a reversal of this trend may be expected as the effect of redeployment on Zone of Interior installations and operations becomes noticeable. High utilization of available beds in both station and regional hospitals is general. The Sixth Service Command appears in the regional hospital table for the first time by virtue of the establishment during April of Fort Sheridan as a regional hospital.

#### Personnel

For the first time, total personnel in the Zone of Interior hospital system exceeded requirements by a small margin, even exclusive of 15,000 POW's about whom data were received for the first time. It should be remembered, however, that the revision of Circular 209, WD, 1944, which eliminated the conversion of three civilians for two military, reduced requirements by approximately 20,000.

Type of Hospital	Personnel Shortages		
	Total Personnel (Exc. POW)	Medical Corps Officers	Army & Civil- ian Nurses
Total	-1,038	450	-216
General Hospitals	- 452	260	67
Convalescent Hospitals	1,239	234	12
Station and Regional Hospitals	-1,825	-44	-295

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**RESTRICTED****HOSPITALIZATION**HOSPITALIZATION IN THE ZONE OF INTERIOR (Continued)BEDS AUTHORIZED AND PATIENTS REMAINING IN STATION AND REGIONAL HOSPITALS  
End of April 1945

Command	Authorized Beds*	Effective Beds**	Patients Remaining		Beds Occupied ***
			Number	Percent of Effective Beds	
Army Service Forces - Total	70,492	50,714	48,043	94.7	46,797
Service Commands - Total	57,087	45,670	45,352	99.3	44,087
Station Hospitals	26,697	21,358	20,176	94.5	19,772
First	178	143	71	49.6	69
Second	1,428	1,142	1,070	93.7	1,054
Third	2,579	2,063	1,765	85.6	1,730
Fourth	5,440	4,352	4,133	95.0	4,104
Fifth	550	440	296	67.3	294
Sixth	735	588	738	125.5	634
Seventh	2,156	1,725	954	55.3	947
Eighth	9,364	7,491	7,239	96.6	7,197
Ninth	3,987	3,190	3,801	119.2	3,635
MDW	280	224	109	48.7	108
Regional Hospitals	30,390	24,312	25,176	103.6	24,315
First	542	433	463	106.9	408
Second	1,250	1,000	1,063	106.3	973
Third	2,850	2,280	2,499	109.6	2,421
Fourth	10,450	8,360	8,170	97.7	7,944
Fifth	1,768	1,414	1,650	116.7	1,629
Sixth	600	480	422	87.9	405
Seventh	2,902	2,322	2,537	109.2	2,463
Eighth	6,200	4,960	5,116	103.1	4,933
Ninth	3,066	2,453	2,943	120.0	2,826
MDW	762	610	313	51.3	313
Chief of Transportation-Total	13,405	5,044	2,691	53.4	2,710

\* Authorized by Commanding Generals of Service Commands or by Chief of Transportation.

\*\* Authorized beds less an allowance of 20 percent for dispersion and 7,100 debarkation beds in Transportation Corps hospitals.

\*\*\* Difference between number of patients remaining and corresponding number of beds occupied represents number of patients temporarily absent from hospital on sick leave, furlough or AWOL.

The most striking change in personnel that occurred during April was the improvement in the nurse situation which, exclusive of cadet nurses, revealed an actual overage of nurses at station and regional hospitals of several hundred. This improvement reflected the continuing success of the recruitment drive. Because of the success of this drive, The Surgeon General's Office has acted informally to make civilian nurses now serving in Army hospitals available again to the civilian communities and particularly to encourage them to seek employment at veterans' hospitals.

There is increasing evidence from the field that the personnel guides for convalescent hospitals are inadequate in that they fail to allow sufficient overhead personnel, especially for the major discharge functions performed by convalescent hospitals.

The most important shortage in personnel which remains is that of Medical Corps officers at general and convalescent hospitals. In light of V-E Day, action is being taken by The Surgeon General to recapture from the inactive theaters Medical Corps officers to cover this shortage. Service command surgeons have been requested to redistribute as a temporary measure as many Medical Corps officers as they can spare from station and regional hospitals to help carry the load in general and convalescent hospitals.

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# HOSPITALIZATION

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## HOSPITALIZATION IN THE ZONE OF INTERIOR (Continued)

WD AGO Forms 8-189 and 8-190

April was the second month for which the field used the new WD AGO Forms 8-189 and 8-190 to render a complete report on Zone of Interior Hospitalization. April was the first month that the reports were received in time for publication, but not in time for a detailed analysis. The following table presents the outstanding facts concerning the distribution of patients and authorized beds by type of hospital and type of care rendered:

BEDS AUTHORIZED AND PATIENTS REMAINING IN ASF HOSPITALS  
BY TYPE OF CARE AND TYPE OF HOSPITAL  
End of April 1945\*

	Beds Authorized	Patients Remaining				
		Total	General	Convalescent	Regional	Station
Total	255,422	247,745	153,481	46,221	25,176	22,867
General-Convalescent Care	170,014	174,738	128,756	45,975	-	7
Evacuees		160,027	115,683	44,337	-	7
Z/I		14,711	13,073	1,638	-	-
Regional-Station Care	67,618	56,422	14,577	230	23,109	18,506
Regional	11,633	12,128	4,755	-	7,024	349#
Station	55,985	44,294	9,822	230	16,085	18,157
Non-Army	17,790	16,585	10,148	16	2,067	4,354
POW	13,493	12,375	7,895	-	1,151	3,329
Civilians	2,625	2,938	1,357	15	654	912
Veterans Administration	975	702	528	-	174	-
Other	697	570	368	1	88	113

\* Excludes debarkation beds and patients.

# Camp Haan, changed from a regional to a station hospital during April, had regional-type patients remaining at end of April.

A preliminary analysis of the foregoing table, as well as preliminary analysis of the individual reports indicates:

- Some over-authorization for station hospital care.
- Uncertainty concerning the ratio of .5 percent for regional hospital care; further investigation may indicate that this will have to be raised.
- That there are less than 15,000 Army patients receiving station or regional hospital type care in general hospitals (almost 3,000 of whom belong to the hospital detachments).
- The relatively small number of civilians receiving hospitalization.

### Summary

The major trends during April follow:

- Continued increase in the patient load of the general and convalescent hospitals focuses attention on the need for accelerating patient disposition.
- The convalescent hospital program showed distinct progress during April and is now operating at nearly full capacity.
- Reduction in station and regional hospital bed authorizations and patients remaining continues.
- Except for Medical Corps officers, personnel availabilities exceed requirements.

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## MISCELLANEOUS

**CONFIDENTIAL**CIVILIAN HEALTH PROBLEMS IN THE EUROPEAN THEATER

Until recently there was ample reason to fear that civilian health conditions in western Europe might actually menace military operations, but fortunately the purely military danger has now passed. Under the Nazi regime public health deteriorated seriously in Europe, and penetration of enemy-occupied territory was expected to add further to the hazard of serious epidemics of potentially great military significance. The G-5 public health program of SHAEF and lower medical echelons was planned so as to minimize this hazard during both the military phase and the phase of transition to the assumption of responsibility by the Allied Control Council. In recent months hundreds of thousands of displaced persons, refugees, and prisoners of war have been uncovered, many in a pitiable state of nutrition and health, and a disorganized, mass movement of huge proportions has taken place in eastern Germany. Despite this, epidemic diseases in Allied-controlled territory have at no time exceeded the bounds of reasonable control, except for local outbreaks which have been rapidly checked.

The Civil Affairs public health program is a command responsibility of all major echelons, assigned public health personnel acting in staff capacity in order to marshal indigenous civilian resources of personnel, supplies, and equipment for the prevention of disease among civilians and for the treatment of disease and injury. Although it was originally hoped that sufficient key civilian public health personnel and indigenous medical resources could be assembled to prevent the burden of civilian care from descending upon the Army, by March it was clear that only the Army would have the necessary means to cope with the immediate problem. It had been planned that UNRRA should staff initially 200 assembly areas for displaced persons in Germany, but lack of personnel has thrown much of the onus upon the military. Also it has not always been possible to equip such indigenous personnel as could be secured for camps in Germany for displaced persons. An estimate of the hospital situation in Germany prepared on 16 March by SHAEF forecast a need for 10 CAD hospital units for use there, although none had previously been planned because such widespread destruction of hospitals had not been visualized. On 5 May SHAEF reduced this requirement to six units following a survey of hospital conditions in Germany.

Command responsibility in forward areas of extensive destruction has necessarily placed some load upon the field medical service, but estimates of the volume of such care are not yet available. Despite the large numbers of civilians uncovered by recent military operations there has been no word that forward medical installations were unable to cope with the load until civilian facilities could be provided for relief. However, a report of the U. S. Third Army for February states in part: "A great difficulty presents itself in that there are little or no medical facilities in some sections of the forward areas, XII Corps Zones. There are no doctors, no hospitals, no medical supplies, no ambulances - a complete medical vacuum. The burden of the care of sick and wounded German civilians was in the hands of the Medical Department. This included treatment and transportation of the wounded to civilian hospitals in liberated countries at a time when the services of the Medical Corps were needed most in the care of the troops. A Public Health officer of this Headquarters has been assigned to the VIII Corps Zone to attempt the re-establishment of civilian medical service, and to relieve the Army of the burden of the care of civilian sick and wounded." During March the Third Army uncovered displaced persons at the rate of 25,000 weekly. In the week ending 31 March alone U. S. Army forces uncovered 145,000 displaced persons entirely apart from German refugees and Allied prisoners of war. Further penetration of the enemy zone of interior during April has created an ever-increasing load for Army medical service, particularly with respect to personnel but not excluding supply. A new problem has come from the fact that German military hospitals have been over-run, necessitating the assignment of U. S. medical personnel for purposes of command and supervision.

Although the public health situation never really interfered with military operations in the European Theater, it has been, and continues to be, serious according to public health standards. Many of the problems have only begun and may be expected to intensify under the mass movement of refugees. Especially important diseases include diphtheria, typhus, tuberculosis, dysentery, hepatitis, and scabies. U. S. Army personnel are exposed in part through contact with refugees and displaced persons, and only continued alertness on the part of Army and Civil Affairs preventive medicine personnel will guarantee a reasonable degree of epidemiological control. The chief dangers threaten the displaced persons, refugees, and the indigenous populations of liberated and enemy territory rather than Army troops.

Diphtheria is a serious problem in Europe today, in point of both morbidity and mortality. During the decade prior to the war diphtheria was disappearing from countries neighboring on Germany, despite the fact that artificially induced immunization was not widespread. In Germany, however, diphtheria increased during this period, and the chaos of the war exposed such countries as the Netherlands, Belgium, Denmark, and Norway to a risk of infection comparable only to that which existed prior to the discovery of immunization and serum therapy. The case-fatality rate, previously on the decline, is also reported to have in-



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## MISCELLANEOUS

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CIVILIAN HEALTH PROBLEMS IN THE EUROPEAN THEATER (Continued)

creased substantially in certain areas. Hungary, on the other hand, was protected from diphtheria by an excellent immunization program.

Sporadic outbreaks of dysentery and typhoid have been reported in displaced persons camps and in certain occupied towns, and acceptable standards of sanitation have often not been maintained in civilian facilities because of military destruction, overcrowding, lack of medical personnel, and the necessity for improvisation at every turn. Scabies is reported to be widely prevalent among displaced persons and refugees who have been examined. None of these disease problems has been acute, however. More serious are the reports of greatly increased incidence of tuberculosis, the general state of malnutrition, and the threat of typhus. Precise and authentic data on tuberculosis and malnutrition are still lacking, but nutrition teams are in the field making observations. However, it is apparent that the official rations set by governments of France, Belgium, and the liberated portions of the Netherlands even now fail to provide sufficient food to meet average nutritional requirements, although infants under one year, expectant and nursing mothers, and children of three to six years are said to be well cared for. All foods of major importance are rationed, and the official diet must often be supplemented by black market purchases with resulting unevenness in distribution. Early in the period of German occupation the nutritional status of northwest Europe became very bad. Thereafter, to increase production, priority groups were better fed. The situation in France and Belgium today is better than under German control. In Holland because of the nature of the liberation the situation is as bad or worse than it was during German occupation and is now being given first priority. A mild to moderate undernutrition is general throughout northwestern Europe, although the general health of the urban population appears not to be far above the borderline of nutritional safety, and serious consequences would probably flow from any material worsening of the present dietary.

Among the communicable diseases louse-borne epidemic typhus continues to present the greatest challenge to civilian health, the immunity of U. S. Army troops being well established by typhus vaccine. They have also been kept quite louse-free. After the last war, typhus ravaged eastern Europe. Latest available reports from Rumania, where before the war there were several thousand cases a year, mention 30,000 new cases in December 1944. The disease developed with explosive rapidity in Naples during the winter of 1943-1944, it will be recalled (see HEALTH for January 1944). During the present war typhus has increased in Germany as well as in eastern Europe. Up to the end of April approximately 2,900 civilian cases had been reported from territory under SHAEF control, and an additional 1,000 or more are rumored to have been found in Belsen. The greatest number of cases of typhus fever have occurred in German prisons where living conditions have been atrocious. The prevention of epidemic, louse-borne typhus rests in large part upon delousing, which has become highly efficient with DDT and appropriate dusting equipment. In order to prevent the spread of the disease westward a sanitary cordon was established along the Rhine in March and orders issued that all civilians would be deloused on the far side of the cordon when crossing. In addition, delousing is routine for all typhus patients, for all immediate or remote contacts, and for displaced persons and others who have been in Germany, Poland, or the Balkans, and for lousy refugees and lousy inmates of concentration camps, jails, or other institutions. The supply of DDT being limited, it is necessary that it be used for dusting only those groups which are most likely to spread typhus fever. Strategic reserves are maintained centrally under military control for use should an extensive epidemic threaten. The efficient Cox-type typhus vaccine used for U. S. Army personnel is being employed for doctors, hospital personnel, staff personnel in displaced persons and refugee centers, and the like. The typhus control program in the European Theater was developed in the fall of 1944 by SHAEF in consultation with the U.S.A. Typhus Commission, and with the coordination of the Chief Surgeon, ETOUSA. Commission representatives are available as consultants to the Army groups as needed. It is fortunate that the collapse of Germany, with its inevitable confusion, disorder, and extensive migration, should occur at a season when control is easier than during the winter months. A lapse of control now might well mean an explosive epidemic next winter.

Control of typhus, the medical care of displaced persons and refugees, and the supervision of German military hospitals became tasks of considerable magnitude in the European Theater during March and April. Since it was impossible to provide sufficient indigenous and UNRRA medical personnel to cope with the tremendous volume of civilian care in so short a period, and since civilian care is a direct military responsibility, it was necessary initially to use Army personnel for this purpose and for the administration of German military hospitals. For supervision of these hospitals alone it has been estimated by the Chief Surgeon, ETOUSA, that 500 officers and 5,000 enlisted men will be withdrawn from U. S. Army fixed hospitals by the end of June. However, it is not contemplated that Army facilities will long continue to be so heavily used for civilian care, for it should be possible to assemble increasing numbers of indigenous and UNRRA personnel for this purpose in the coming months.

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## MISCELLANEOUS

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### ROTATION OF NURSES

With a net gain of only 2,000 nurses during the period 1 April to 31 December 1944, the shipment of many T/O units overseas, and the increased number of patients in the Zone of Interior requiring not only more, but more meticulous, nursing care, it has hitherto been impossible to grant the requests of theaters for nurse filler and replacement personnel. Except for the European Theater and the Pacific Ocean Areas, the theaters have for some time had limited rotational programs for nurses. With more than 28,000 nurses overseas, requisitions for rotational purposes have currently numbered as few as 75 to 140 nurses monthly, so that many of them have been on duty in all theaters for more than three years.

This lack of an adequate rotation policy has been imposed by military necessity and is in contrast to the peacetime policy of the War Department, when even under more favorable living conditions and less pressure of work, assignment to tropical areas such as those in the Persian Gulf, India-Burma Theater, Southwest Pacific Area, and portions of the Pacific Ocean Areas, have been limited to two years.

When registered nurses responded so splendidly to the intense recruiting drive for Army Nurse Corps officers early in 1945, and nurses in the Zone of Interior no longer were a critical category of personnel, The Surgeon General, cognizant of the physical changes and lowered morale of nurses with long service overseas, especially in the tropics, immediately began discussions with Personnel Division, Army Service Forces, regarding an "exchange" of nurses. Inasmuch as R-Day was in sight, and would solve the problem for nurses in the Mediterranean and European Theaters, the "exchange" was to be limited to nurses in the tropical areas.

As 2,550 nurses were available for the purpose of exchange, all nurses having two or more years of service in the Pacific area could be replaced. This number of nurses was available if the theaters would postpone requisitions for fillers and replacements to one nurse to fifteen beds (rather than one to twelve, present requirement for Communication Zone) until more nurses became available, either through procurement or through return to the Zone of Interior. The latter group would be ready for duty approximately three and one-half months later, allowing for water transportation and leave for all officers, both those returning and their replacements.

Negotiations are under way to effect this exchange at the earliest practicable date.



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## MISCELLANEOUS

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### PHYSICAL STANDARDS FOR REDEPLOYMENT

Just as men must be carefully selected for Army service initially, and further screened according to rigorous requirements before they are embarked for overseas assignments, so they must again be examined to determine their physical and emotional fitness for redeployment to still another overseas theater after having already served abroad. Difficulties in mobilizing an army of 8,100,000 men were originally met in part by relaxing physical standards, and it might be supposed that the reduction in Army strength contemplated as a companion move to redeployment would conversely employ, as one means, a tightening of physical standards previously in effect. This is not the case, however, and the War Department standards previously in effect for overseas service will be used for redeployment. It is desirable to employ the same physical standards in selecting men from the Z/I and from the European war zone for service in the Pacific, and no military advantage would be realized by a more rigorous physical selection of men from the Z/I.

Whereas, in the selection of men for induction, physical standards were virtually supreme, other military considerations now enter by virtue of the training and experience which the average overseas soldier has had. If the full advantages of unit training and service overseas are to be utilized, it is highly desirable that a maximum number of men who have proved their competence in assigned duty be retained, whereas very stringent physical standards would conflict with this objective. From the standpoint of simple justice also there is every reason to select the men to be returned to civilian life on the basis of the extent of their sacrifice, both in length and type of service and in absenting themselves from their civilian responsibilities. Moreover it would be administratively feasible to tighten physical standards for overseas service further only by deleting some defect-group not now considered disqualifying, such as uncomplicated venereal disease, or by establishing more rigid criteria of vision, hearing, or some similar, readily measured capacity. On the other hand, it would be well to consider the exclusion of men with dermatologic disorders from troops to be redeployed to the Pacific because of the unfavorable prognosis in a tropical or subtropical theater for soldiers afflicted with certain types of skin disease. A recent report from the South Pacific Base Command recounts the experience of a general hospital there in studying certain skin disorders which have proved particularly disabling and adamant to treatment, and says in part: "By preventing the assignment of soldiers subject to certain dermatologic conditions to tropical or sub-tropical areas, countless non-effective and hospital days would be saved as well as the cost, both in money and in lost effectiveness resulting from wasted manpower. In many instances these soldiers could have been utilized for full duty in other theaters with no resultant disability as a consequence of their skin condition." A capacity such as emotional adequacy for military service cannot even now be unequivocally defined but must be left in large part to the examiner to determine in each individual; any change would result in confusion potentially damaging to morale at a critical period. It is against this background, then, that the War Department has made the decision that physical standards for redeployment would be those presently governing movement overseas. The standards will be the same whether men move from one theater to another directly or through the Z/I.

There are certain features which merit comment in the application of the standards to redeployment conditions. Although there is no abrogation or weakening of the provisions of existing directives to the effect that men whose defects are progressive or subject to complications shall not be sent overseas, the redeployment directives wisely call attention to the military necessity for considering physical and emotional fitness in the light of the manner in which individuals have performed their duties overseas. There is no reason why unit commanders should be deprived of key men on arbitrary or theoretical grounds. This policy is further implemented, and the entire screening process itself greatly advantaged, by the provisions that medical personnel already serving each unit shall perform the examination necessary to establish physical and emotional qualifications for redeployment. The special knowledge which the unit medical personnel has gained of the men themselves and the conditions of their service should go far to insure that the redeployment screening procedure will be of excellent quality and geared to military fact. Although it is an extremely difficult field in which to exercise definitive judgment, the psychiatric evaluation particularly should benefit from such additional knowledge. The redeployment directives include a further clarification of emotional qualifications for overseas duty. In addition to specifying the frankly disqualifying defects, such as psychosis, marked mental deficiency, markedly psychoneurotic symptoms, and the like, they define a borderline group having psychoneurotic symptoms of mild to moderate severity and specify that an individual clinical judgment will in each case be made on the basis of severity and duration of symptoms, the type and degree of stress precipitating the symptoms, the basic personality strength and adjustive capacities of the individual, and the actual impairment of his functional capacity.



**CONFIDENTIAL****MISCELLANEOUS**PHYSICAL STANDARDS FOR REDEPLOYMENT (Continued)

In general, men who have recovered from acute and infectious diseases are judged qualified to move overseas or to be redeployed. Existing directives do provide, however, that men with complications or after-effects which are likely to become aggravated, or in whom re-infection might be serious, are not qualified for overseas duty. An example of the latter group is the men who have suffered from filariasis, for repeated filarial infection carries the threat of permanent damage. An exception to the rule has been uncomplicated malaria, the former policy having been to defer movement of such individuals until six months after their last attack or six months after parasites have disappeared from the blood. In this respect, however, the redeployment criteria are to be liberalized and simple malaria is to be treated like any other acute infectious disease both for redeployment and dispatch overseas. If this were not done the redeployment of troops from the Mediterranean Theater especially might be rendered needlessly difficult, and a motivation would be provided for men to avoid suppressive atabrine when such may be indicated.

Men found upon examination overseas to have remediable defects will not be pulled out of their units on this account alone, but steps are to be taken for their correction. Dental defects are to be corrected prior to embarkation from the theater insofar as possible. Other minor defects are also to be corrected in the theater or in the Z/I assembly stations. The immunizations required for the land areas through which troops will pass as well as for the theater of destination are to be performed or initiated prior to embarkation from overseas, and the usual communicable disease checks are to be made at appropriate points in the movement.

An important feature of the examination to determine eligibility for redeployment is the recording on the Soldier's Qualification Card (WD AGO Form No. 20) of any real defects found and of the limitations in assignment thereby created as well as the physical profile serial. This step should greatly facilitate any necessary reassignment, especially since the judgment is being made by a unit medical officer with knowledge of the duty of the unit and first-hand information regarding the physical condition of the men.

There are two large groups of men whose screening will be of particular interest, those who have been treated for neuropsychiatric symptoms and those who have suffered cold injuries. There is no way of knowing how large these groups will be when the screening starts, for many have been evacuated to the Z/I for these or other reasons, some have been killed, and the admission counts contain duplication within and between the two groups. With all due allowance for such reduction in their aggregate numbers, these two groups must still be formidable in size, for, in the European and Mediterranean Theaters, there have been no less than 50,000 admissions for cold injury and 125,000 for neuropsychiatric conditions in 1944 and 1945 alone. The possible difficulties are of two kinds: one, that men be pulled out of their units on these grounds incorrectly; and the other, that men may be cleared and continue to the Pacific only to fail there under combat conditions. Errors of this kind are not compensating. One can only rely upon the judgment and experience of the medical examiners, guided by the War Department policies which have been established, to make the best possible determinations from the military standpoint.

It is perhaps natural for elements of command to regard with anxiety the physical review and appraisal of men with a view to their eligibility for redeployment. However, command interest in retaining all possible individuals of high qualifications is amply safeguarded by the provision that the standards shall be the same as those presently governing overseas movement, by the provision that unit medical officers shall make the examinations insofar as practicable, and by the express statement that men who have served usefully overseas are not to be pulled out of their units unless their defects are subject to complications or aggravation by further overseas service. This is the principal upon which the present overseas standards are based. With this recognition of the command interest, which in the last analysis is identical with the medical interest, the troops redeployed to the Pacific should be physically and emotionally adequate to accomplish their difficult mission.



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## STATISTICAL TABLES

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## STATISTICAL TABLES

The tables below and on the following pages present admission rates for selected causes in the overseas theaters. The rates include cases admitted to hospital or confined to quarters for a day or more, and have been derived from MD Forms 86ab (now AGO Form 8-122), both regular and telegraphic, submitted to The Surgeon General from each overseas theater or lesser command. Only the major overseas areas are shown separately, but the total overseas rates are based upon a complete consolidation. Except for wounded, the rates for each month are based upon the experience of four or five weeks depending upon the number of Fridays in a month. For wounded in action the rates pertain to calendar-month periods and are derived from The Adjutant General's report, Battle Casualties of the Army, which tabulates hospital admissions only. The rates are based upon all casualties incurred, including those of the Air Force. In addition, all casualties are tabulated according to the theater of assignment of the men involved. However, there has been a problem associated with the tabulation of the men involved. The XXIV Corps, a Pacific Ocean Areas unit attached to the Southwest Pacific for the Leyte campaign. Some of the casualties sustained by this unit are tabulated with those of the Pacific Ocean Areas, the remainder with those of the Southwest Pacific. Therefore these two theaters have been combined, beginning with October 1944, for purposes of computing rates for wounded. Rates computed from incomplete reports are so noted, and those derived from the weekly telegraphic 86ab reports are distinguished from those obtained from the regular monthly report.

The malaria rates are for diagnosed malaria only, and include both primary attacks and recurrences insofar as these are reported as malaria, a variable amount, differing from theater to theater, being reported as fever of undetermined origin. The rates for the Army in the continental United States reflect only infections acquired in the United States. The venereal disease rates represent the data of the 86ab report rather than the Monthly Venereal Disease Statistical Report, which generally yields somewhat lower rates, and for the United States, exclude cases contracted prior to service. The transfer of strength from the Mediterranean to the European Theater is believed to have caused some error in the reports from the former area for October and November, one which takes the form of too little strength for the admissions reported. Tentative neuropsychiatric admission rates are presented for 1944. Not systematically reported on the 86ab until late in 1943, these rates may not be as firm as those for communicable diseases. With respect to the table on fever of undetermined origin, many of the admissions initially reported as such are later given specific diagnoses, often malaria. Since the system of reporting does not make it possible to subtract such cases from the undiagnosed category, a certain amount of dual reporting exists.

WOUNDED IN ACTION, AS REPORTED TO THE ADJUTANT GENERAL  
Hospital Admissions per Thousand Men per Year

Month and Year	OVERSEAS COMMAND								
	Total a/ Overseas	North American	Latin American	ETO b/	MTO	POA	SWPA	CBI	ME and PGC
1943 Average	23	6	0	7	62	18	9	4	4
1944 Jan	30	-	0	4	115	8	11	0	4
Feb	39	0	0	6	145	35	6	1	0
Mar	24	-	-	4	65	37	29	11	1
Apr	13	-	-	6	38	5	12	12	17
May	42	-	-	5	182	1	25	8	23
Jun	115	-	0	191	102	55	45	42	12
Jul	143	-	-	269	95	40	24	24	12
Aug	100	-	-	189	73	20	10	9	-
Sep	112	-	-	174	167	38	5	3	0
Oct	95	0	-	117	171	51		3	-
Nov	133	0	-	234	36	42		1	0
Dec	118	-	-	190	30	46		1	-
1944 Average	87	0	0	139	104	29		10	6
1945 Jan	126	-	-	202	14	50		0	-
Feb	103	-	-	134	58	95		2	-

a/ Including casualties among men enroute overseas.

b/ Excluding Iceland.

- is used to denote no admissions, 0 to denote a rate of less than 0.5.

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# STATISTICAL TABLES

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## STATISTICAL TABLES (Continued)

### ADMISSIONS TO HOSPITAL AND QUARTERS Rates Per Thousand Men Per Year

Month and Year	United States	Overseas Commands								
		Total	Alaska	Carib- bean	ETO <u>a/</u>	MTO	POA	SWPA	Asiatic	ME and PGC
ALL DISEASE										
1942 Average	664	676	667	823	693	452	519	821	1,048	1,330
1943 Jan-Jun	807	873	737	690	887	723	1,008	1,289	957	1,023
Jul-Dec	675	899	533	649	822	1,065	942	921	1,004	1,177
1943 Average	739	889	624	670	837	943	971	1,046	991	1,107
1944 Jan-Jun	619	695	566	528	578	812	600	902	967	949
Jul	473	654	367	561	346	998	474 <u>b/</u>	877	1,535	1,073
Aug	472	609	377	555	329	845	500 <u>b/</u>	904	1,520	978
Sept	506	581	341	528	305	844	659 <u>b/</u>	816	1,228	896
Oct	511	644	341	532	467	930	545 <u>b/</u>	771	1,154	775
Nov	494	627	387	532	539	810	443 <u>b/</u>	729	897	729
Dec	513	629	298	512	564	862	449 <u>b/</u>	759	782	645
Jul-Dec	495	623	351	536	440	880	513 <u>b/</u>	804	1,152	842
1944 Average	563	654	478	531	492	846	561 <u>b/</u>	840	1,077	896
1945 Jan	603	660	337	529	609	878	429	799	728	658
Feb	626	(672)	363	587	(627) <u>b/</u>	790	539	(917)	652	554
Mar	592	<u>c/</u>	384	546	(561) <u>b/</u>	714	(428)	(1,017)	(630)	(599)
Apr	544 <u>b/</u>	<u>c/</u>	<u>c/</u>	(552)	<u>c/</u>	<u>c/</u>	<u>c/</u>	<u>c/</u>	(637)	(559)

### NONBATTLE INJURY

1942 Average	91	123	152	107	109	96	104	176	80	158
1943 Jan-Jun	80	150	193	115	130	154	135	191	103	144
Jul-Dec	81	129	173	93	91	145	128	160	77	136
1943 Average	80	136	182	105	100	149	131	171	84	140
1944 Jan-Jun	69	114	145	75	85	145	118	151	95	107
Jul	72	125	114	63	126	146	96 <u>b/</u>	141	86	105
Aug	71	105	103	65	88	125	86 <u>b/</u>	149	88	88
Sep	67	101	107	61	73	137	107 <u>b/</u>	144	81	95
Oct	66	108	95	60	87	135	116 <u>b/</u>	142	98	88
Nov	61	111	94	56	106	131	111 <u>b/</u>	117	115	81
Dec	55	121	84	59	136	107	101 <u>b/</u>	108	111	94
Jul-Dec	66	112	100	61	105	131	102 <u>b/</u>	132	97	92
1944 Average	67	113	127	68	97	138	111 <u>b/</u>	139	96	99
1945 Jan	55	141	102	60	176	103	95	104	105	69
Feb	50	98	94	67	(105) <u>b/</u>	88	86	(105)	99	73
Mar	49	<u>c/</u>	109	61	(101) <u>b/</u>	89	(84)	(118)	(110)	(63)
Apr	48 <u>b/</u>	<u>c/</u>	<u>c/</u>	(65)	<u>c/</u>	<u>c/</u>	<u>c/</u>	<u>c/</u>	(98)	(60)

- is used to denote no admissions, 0 to denote a rate of less than 0.5.

a/ Excluding Iceland.

b/ Based on Incomplete Reports.

c/ Data not available.

( ) Telegraphic Reports.

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# STATISTICAL TABLES

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## STATISTICAL TABLES (Continued)

### ADMISSIONS TO HOSPITAL AND QUARTERS Rates Per Thousand Men Per Year

Month and Year	United States	OVERSEAS COMMANDS								
		Total	Alaska	Carib- bean	ETO <u>a/</u>	MTO	POA	SWPA	Asiatic	ME and PGC
ALL VENEREAL DISEASE										
1942 Average	39	32	7	74	38	36	12	32	64	80
1943 Jan-Jun	25	31	4	67	50	41	6	21	58	64
Jul-Dec	27	36	2	43	41	65	5	12	50	71
1943 Average	26	34	3	56	43	56	5	15	52	68
1944 Jan-Jun	30	37	3	33	26	96	6	9	53	60
Jul	35	38	7	34	22	117	4 <u>b/</u>	7	50	50
Aug	36	36	6	31	21	121	4 <u>b/</u>	7	47	50
Sep	37	44	6	30	35	125	5 <u>b/</u>	6	53	55
Oct	38	56	7	37	57	140	5 <u>b/</u>	5	50	62
Nov	39	47	7	42	48	115	3 <u>b/</u>	4	43	79
Dec	39	47	8	29	50	134	5 <u>b/</u>	5	53	72
Jul-Dec	37	45	7	33	40	125	4 <u>b/</u>	6	50	62
1944 Average	33	42	5	33	35	111	5 <u>b/</u>	7	51	60
1945 Jan	47	46	6	29	49	124	5	5	54	80
Feb	43	<u>c/</u>	8	43	<u>c/</u>	105	4	<u>c/</u>	57	75
Mar	43	<u>c/</u>	10	40	<u>c/</u>	94	<u>c/</u>	<u>c/</u>	<u>c/</u>	<u>c/</u>
Apr	43 <u>b/</u>	<u>c/</u>	<u>c/</u>	<u>c/</u>	<u>c/</u>	<u>c/</u>	<u>c/</u>	<u>c/</u>	<u>c/</u>	<u>c/</u>

### DIAGNOSED MALARIA

1942 Average	0.6	33	0	99	0	11	12	52	165	127
1943 Jan-Jun	0.2	86	0	50	0	12	164	330	116	90
Jul-Dec	0.3	101	0	23	3	77	241	201	205	150
1943 Average	0.2	96	0	37	3	54	208	245	181	123
1944 Jan-Jun	0.1	43	-	16	10	61	67	75	113	66
Jul	0.2	50	-	20	17	81	21 <u>b/</u>	59	265	121
Aug	0.2	47	-	15	12	91	14 <u>b/</u>	48	310	71
Sep	0.2	37	-	11	6	74	15 <u>b/</u>	42	240	51
Oct	0.2	33	-	13	6	61	10 <u>b/</u>	37	255	40
Nov	0.1	23	-	8	5	38	9 <u>b/</u>	32	165	23
Dec	0.1	18	-	6	6	25	6 <u>b/</u>	32	112	15
Jul-Dec	0.2	34	-	12	8	63	13 <u>b/</u>	41	216	52
1944 Average	0.2	38	-	14	9	62	43 <u>b/</u>	53	174	59
1945 Jan	0.1	14	0	7	5	19	8	27	74	11
Feb	0.2	<u>c/</u>	-	7	<u>c/</u>	16	6	<u>c/</u>	49	9
Mar	0.1	<u>c/</u>	-	7	<u>c/</u>	21	<u>c/</u>	<u>c/</u>	<u>c/</u>	<u>c/</u>
Apr	0.2	<u>c/</u>	<u>c/</u>	<u>c/</u>	<u>c/</u>	<u>c/</u>	<u>c/</u>	<u>c/</u>	<u>c/</u>	<u>c/</u>

- is used to denote no admissions, 0 to denote a rate of less than 0.5.

a/ Excluding Iceland.

b/ Based on Incomplete Reports.

c/ Data not available.

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# STATISTICAL TABLES

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## STATISTICAL TABLES (Continued)

### ADMISSIONS TO HOSPITAL AND QUARTERS Rates Per Thousand Men Per Year

Month and Year	United States	OVERSEAS COMMANDS								
		Total	Alaska	Carib- bean	ETO <u>a/</u>	MTO	POA	SWPA	Asiatic	ME and PGC
COMMON RESPIRATORY AND INFLUENZA										
1942 Average	243	159	244	113	287	151	89	146	150	197
1943 Jan-Jun	310	164	294	87	374	125	90	127	143	182
Jul-Dec	188	190	164	112	420	151	83	99	165	217
1943 Average	247	181	222	99	409	142	86	108	159	201
1944 Jan-Jun	198	174	245	84	225	185	97	90	177	254
Jul	66	89	94	85	64	114	61 <u>b/</u>	88	248	140
Aug	67	80	98	85	56	107	62 <u>b/</u>	82	195	182
Sep	81	88	111	81	69	110	88 <u>b/</u>	76	174	191
Oct	92	113	127	68	101	186	85 <u>b/</u>	64	175	191
Nov	93	111	134	77	112	154	61 <u>b/</u>	78	147	185
Dec	115	116	72	68	122	166	63 <u>b/</u>	81	141	200
Jul-Dec	85	100	105	77	92	138	70 <u>b/</u>	78	176	182
1944 Average	147	132	188	81	142	162	85 <u>b/</u>	83	176	219
1945 Jan	167	147	106	67	168	190	72	95	135	180
Feb	192	<u>c/</u>	135	71	<u>c/</u>	182	60	<u>c/</u>	135	149
Mar	167	<u>c/</u>	115	65	<u>c/</u>	152	<u>a/</u>	<u>c/</u>	<u>c/</u>	164 <u>b/</u>
Apr	123 <u>b/</u>	<u>c/</u>	<u>c/</u>	<u>c/</u>	<u>c/</u>	<u>c/</u>	<u>c/</u>	<u>c/</u>	<u>c/</u>	<u>c/</u>

### DIARRHEA AND DYSENTERY

1942 Average	8	28	5	19	17	33	34	57	120	185
1943 Jan-Jun	8	69	11	16	13	139	49	72	130	169
Jul-Dec	15	65	5	16	11	128	38	69	152	171
1943 Average	12	66	8	16	12	132	43	70	146	170
1944 Jan-Jun	9	35	3	13	11	41	28	58	182	101
Jul	12	57	3	15	9	114	41 <u>b/</u>	56	326	159
Aug	11	48	6	9	10	76	40 <u>b/</u>	57	280	178
Sep	10	38	3	10	12	66	23 <u>b/</u>	41	186	159
Oct	10	34	4	9	12	68	19 <u>b/</u>	37	140	106
Nov	8	32	4	15	14	43	19 <u>b/</u>	54	105	129
Dec	7	36	2	13	22	33	20 <u>b/</u>	76	100	55
Jul-Dec	10	40	3	12	14	67	28 <u>b/</u>	54	180	129
1944 Average	9	38	3	13	13	54	28 <u>b/</u>	55	181	115
1945 Jan	8	30	1	11	17	20	18	76	69	56
Feb	8	<u>c/</u>	2	14	<u>c/</u>	21	27	<u>c/</u>	68	31
Mar	6	<u>c/</u>	2	21	<u>c/</u>	19	<u>c/</u>	<u>c/</u>	<u>c/</u>	<u>c/</u>
Apr	6 <u>b/</u>	<u>c/</u>	<u>c/</u>	<u>c/</u>	<u>c/</u>	<u>c/</u>	<u>c/</u>	<u>c/</u>	<u>c/</u>	<u>c/</u>

- is used to denote no admissions, 0 to denote a rate of less than 0.5.

a/ Excluding Iceland.

b/ Based on Incomplete Reports.

c/ Data not available.



## STATISTICAL TABLES

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## STATISTICAL TABLES (Continued)

ADMISSIONS TO HOSPITAL AND QUARTERS  
Rates Per Thousand Men Per Year

Month and Year	United States	OVERSEAS COMMANDS								
		Total	Alaska	Carib- bean	ETO <u>a/</u>	MTO	POA	SWPA	Asiatic	ME and PGC
FEVER OF UNDERTERMINED ORIGIN										
1943 Jan-Jun	<u>c/</u>	45	0	74	1	16	17	244	54	17
Jul-Dec	<u>c/</u>	56	0	52	1	108	20	125	77	26
1943 Average	<u>c/</u>	52	0	64	1	75	19	166	71	21
1944 Jan-Jun	<u>c/</u>	35	1	37	1	57	26	102	69	16
Jul	<u>c/</u>	60	1	50	2	133	8 <u>b/</u>	114	209	66
Aug	<u>c/</u>	57	0	50	5	122	31 <u>b/</u>	95	247	52
Sep	<u>c/</u>	44	0	43	1	97	16 <u>b/</u>	80	184	34
Oct	<u>c/</u>	34	-	14	1	66	8 <u>b/</u>	60	213	30
Nov	<u>c/</u>	29	0	15	1	48	8 <u>b/</u>	71	133	27
Dec	<u>c/</u>	24	0	13	4	38	5 <u>b/</u>	69	97	21
Jul-Dec	<u>c/</u>	40	0	31	3	85	13 <u>b/</u>	80	174	37
1944 Average	<u>c/</u>	38	1	34	2	71	20 <u>b/</u>	88	131	27
1945 Jan	<u>c/</u>	<u>c/</u>	0	20	4	39	5	70	87	12
Feb	<u>c/</u>	<u>c/</u>	-	10	<u>c/</u>	43	9	<u>c/</u>	60	24
Mar	<u>c/</u>	<u>c/</u>	0	10	<u>c/</u>	41	<u>c/</u>	<u>c/</u>	<u>c/</u>	<u>c/</u>

## NEUROLOGICAL AND PSYCHIATRIC DISORDERS

1944 Jan	27	30	12	23	36	22	29	44	29	30
Feb	27	29	10	24	25	36	25	44	29	28
Mar	27	27	12	22	19	33	29	45	23	27
Apr	26	24	11	21	18	26	25	43	19	23
May	32	29	9	16	20	48	22	52	16	30
Jun	33	35	8	19	29	50	26	53	24	27
Jan-Jun	29	29	11	21	24	37	26	48	23	27
Jul	32	59	10	16	84	52	27 <u>b/</u>	58	16	31
Aug	36	50	12	18	76	28	25 <u>b/</u>	48	17	21
Sep	46	41	13	25	40	50	32 <u>b/</u>	53	16	15
Oct	48	56	13	23	65	82	32 <u>b/</u>	39	21	21
Nov	47	60	13	27	85	47	28 <u>b/</u>	41	23	16
Dec	47	56	12	22	72	39	29 <u>b/</u>	53	20	26
Jul-Dec	45	53	12	22	69	50	29 <u>b/</u>	49	19	22
1944 Average	36	43	12	21	52	43	27 <u>b/</u>	48	20	25
1945 Jan	50	<u>c/</u>	14	25	51	32	36	43	19	20
Feb	49	<u>c/</u>	9	27	<u>c/</u>	31	25	<u>c/</u>	20	15
Mar	50	<u>c/</u>	13	29	<u>c/</u>	31	<u>c/</u>	<u>c/</u>	<u>c/</u>	<u>c/</u>

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